

# SOUTHERN TEXTILE BULLETIN

VOL. 29

CHARLOTTE, N. C., THURSDAY, DECEMBER 17, 1925

NUMBER 16

## Fixing Looms Made Easy

By the use of repair parts made by the Loom  
Manufacturer.

Time lost in fitting loom repair parts made in  
local foundries reduces production in the Weave  
Room, increases costs and handicaps the  
Loomfixer.

Draper repair parts fit Northrop Looms and are  
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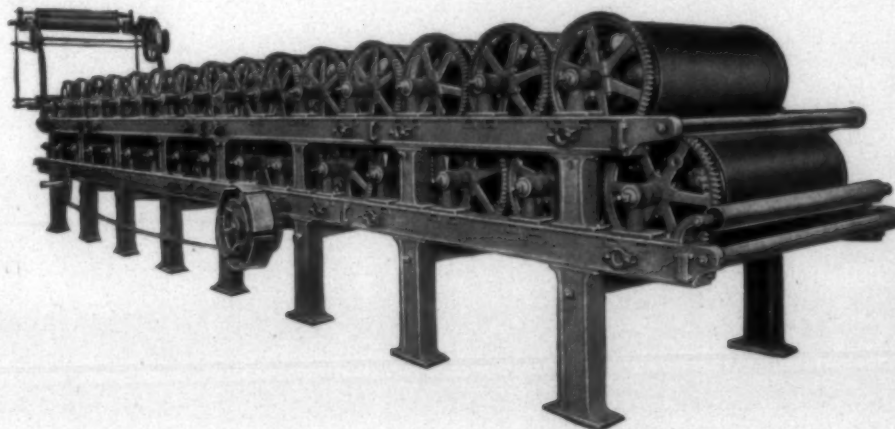
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MERCERIZING  
RANGES

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DYEING  
RANGES




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FINISHING  
RANGES

AND

Machinery of  
all kinds for  
processing cotton  
fabrics and  
Warp Yarns.

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The illustration shows a Horizontal Drying Machine consisting of heavy cast iron framing supporting thirty-one cylinders, which can be made of either copper or tinned steel according to requirements. Each cylinder mounted in Standard bearings and is driven by a cut cast iron gear meshing with the cylinder gear of the next cylinder making a train of gears driving all cylinders.

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Inquiries both large and  
small receive prompt and  
careful attention.

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## Whitin Machine Works

Whitinsville, Mass.

December 17, 1925

Dear Mr. Mill Man:

We have heard that there is much Strict Low Middling cotton on the market. One broker told us that "off-color" cotton seemed more plentiful than usual. However, there still is some long-staple cotton to be had, and some which is white.

We cannot change the color of cotton, but, be the staple long, medium, or short, we have the pickers, bale-breakers, openers, C. O. B.'s, evener motions to prepare the cotton to your best advantage.

Ask "Jim" McGowan about it. Mr. McGowan is only too anxious to be of assistance at any point from the mixing of the stock to the weighing of the lap.



Mr. J. J. McGowan

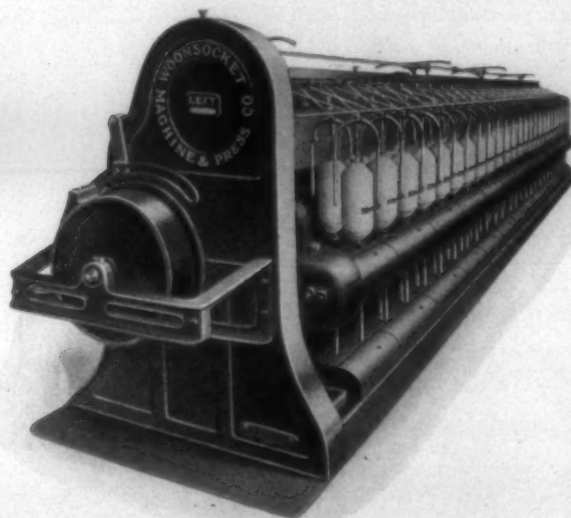
Yours sincerely,

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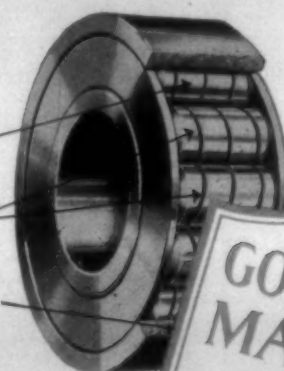
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ESSENTIAL  
TO  
PROFITABLE  
MANUFACTURE**

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But manufacturers are building better machinery today than ever before. . . . better machinery calls for better bearings. . . . and better bearings are Hyatt "anti-friction"—the type of bearing that makes textile machinery operate easier and more economically.

So a greater margin of safety is assured by increased capacity and reduced manufacturing costs when looms are

equipped with Hyatt roller bearings on crank shafts, cam shafts and rockershafts.

With Hyatt bearings adjustments and replacements are unnecessary. Lubrication is required only when changing warps. Maintenance costs are a negligible item.

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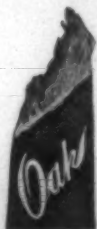
Send for your copy of the Textile Bulletin. The information it contains will prove valuable to you

# HOUGHTON

## FIBER LENGTH MEANS LEATHER STRENGTH

Just a regular ad

by Chas. E. Carpenter



**T**HE illustrations show a piece of oak and one of VIM leather torn under the same conditions.

The difference in the length of the fibers is very apparent.

We not only make flat leather belting out of this long fibered VIM leather, but we also make round belting—the sort that is used to drive sewing machines and light machinery.

The fibers in leather are a dense plexus, which are spun, knit and interwoven in all directions. The fibers do not run in two directions like unto a piece of woven cloth.

In cutting round leather belting, the belt is not cut in one direction, parallel with the backbone, as is the case with flat belting, but it is cut around and around, commencing at the outer edges of the butt and continuing the cutting until the center is reached. Therefore, a round leather belt is cut in all directions and with each cut the fiber is shortened proportionately. For that reason round leather belting cut from long fibered leather is far more preferable.

Round leather belting should be elastic, because

the load is usually too light to permit of running the belt too tight and the frictional loss at the lubricated bearings of a too tight belt is most expensive.

**\*VIM BLACK STRIPE ROUND LEATHER BELTING** possesses the longest fibers; is most elastic; slips less and will pull a heavier load with less slip than any other, and it is sold with that guarantee.

But I want to make a confession. VIM Leather Belting does contain water, and inasmuch as Ben Nit claims that everything containing water is fraudulent and adulterated, I thought I ought to make this confession. I should say about 2% will be the average water content. Ben Nit suggests that the manufacturer ship the mill man everything without water, and that the mill man add his own water, but I regret there is no method known to science by which even a waterproof leather like VIM can be prevented from absorbing some water.

You will be surprised at the superior satisfaction which **\*VIM BLACK STRIPE ROUND LEATHER BELTING** will give.

\*Trade Mark Reg. U. S. Pat. Off.

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*Oils and Leathers for the Textile Industry*



# SOUTHERN TEXTILE BULLETIN

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VOL. 29

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NUMBER 16

## *Urges Modern Machinery to Reduce Mill Costs*

**T**HERE are a thousand ways in which the machinery man and engineer can be of benefit to the mill man if the latter will only co-operate and show as much interest in his mill as he does in going to New York to try and sell goods."

This is one of the observations made by Herbert G. Beede, secretary of the Fales & Jenks Machine Co., Pawtucket, during his address before the New England Textile Club last week. Mr. Beede tried to answer the question of why the textile industry is not equally as prosperous as other industries of the country.

While it is true that there are at least 15 per cent too many spindles in the industry, Mr. Beede pointed out that a process of elimination is surely but slowly going on. This process will continue, he said, until the line of requirements and production is crossed. Some of the mills and some of the machinery being scrapped is so obsolete that the mill ought never again be operated as cotton mills, he said.

### **Obsolete Machinery.**

Obsolescence of plant and machinery is a potent factor in holding back the progress of many manufacturers, Mr. Beede insisted. "Frankly," he remarked, "this is the time which the machinery man has been waiting for; the time when many old mills would have to arrange for the installation of new equipment. He has been figuring for some years that this time would inevitably come and that the requirements for new machinery would give the machinery man something to do."

"If your depreciation account is not available," he urged "borrow the money and start putting your mill in order, and, for Heaven's sake, keep the good work up year after year. Money spent regularly will more than pay for itself."

Mr. Beede mentioned the experience of one new mill that replaced an old one and now shows 30 per cent more production with same number of spindles together with a reduction of more than 10 per cent in the number of operatives.

His address follows in part:

### **Coarse Yarn Tendency.**

"Why it is, if the industries of the country are so prosperous as they are reported to be, that we in the textile business are not equally prosperous? As I look at the situation there are several reasons. In fact place, the manufacture of textiles

has not only been forced more or less to conform to the requirements of the changing conditions but a silent change has been taking place which perhaps has not been very much thought of or considered.

"With the development of the many new requirements and the loss of many of the old, the tendency has been to produce a great quantity of coarser yarns and goods because the requirements for the various mechanical and industrial uses has been on the coarse end of our textile product, as for instance the tire fabric, the belting duck, fire hose, cotton ropes and twines; so that the average number of yarn spun (taking all the mills of the country) is probably 10 or 12 numbers coarser than it was 15 years ago.

### **Machinery Production.**

"The textile machinery man will tell you that the bulk of all machinery furnished by him in the last 15 years has been for coarse numbers, probably averaging around 20s yarn. He will also tell you that in the last 15 years, at least one-half of the time has been a limited production of cotton machinery much below his capacity. It is plain therefore that we have not overproduced on cotton machinery, but that there is perhaps in addition to the spinning of coarse numbers instead of fine also an underconsumption. Doubtless the underconsumption factor enters largely in the woolen and worsted end of the business, while on the linen end of the textile business the high price of producing linen yarns has led to the substitution of cotton yarns for the linen.

### **Too Many Spindles.**

"On the whole it would appear that there are at least 15 per cent too many spindles in the country. Reports as published not only by the Government but in textile magazines indicate this quite clearly. I will not quote the figures. Suffice to say that the figures show approximately 15 per cent. No doubt in time with increasing consumption of cotton goods in various lines, we will absorb the available spindles, which are ready for operation.

"As to how near we have approached the period when we will have sufficient cotton at a reasonable price at a price which will allow the manufacturer the sale of a large variety of goods to keep his spindles busy, it is difficult to determine. In the meantime the pro-

cess of elimination is going on; old mills here and there are being dismantled; the machinery disposed of in one way or another, some I hope for the benefit of an otherwise unfortunate user, are being scrapped."

"This process will continue until we cross the line of requirements and production. Some of these mills and some of the machinery is so obsolete that the mills at least ought never again be operated as cotton mills, which reminds me of a story from the Purple Cow:

Rastus, I'm sorry to hear you've buried your wife.

Boss, I just had to. She was dead.

"Some one will say 'What in the mean time is to be done with our mill?' The answer is: A mill, well kept up, well managed and the goods properly merchandised will probably succeed, for I am able to assure you that there are mills which are successful, which are making money and not all of them are brand new mills. They must have a combination of the three elements: equipment, management and merchandising. The question of finance is, of course, another matter, but I have noticed that the mills well managed and with goods properly merchandised, not only have money but also demand good equipment. To be absolutely frank with you, this is the time which the machinery man has been waiting for; the time when many old mills would have to arrange for the installation of new equipment. He has been figuring for some years that this time would inevitably come and that the requirements for new machinery would give the machinery man something to do.

"Unfortunately, many mills have neglected one important factor because the business is old, well established and had for years run along quite smoothly, but in the changing conditions it is necessary to recognize that even a cotton mill is subject to obsolescence. Obsolescence, of course, is not as rapid for the cotton mill as it is for the electrical business or the automobile business. In fact the most rapid obsolescence always comes in the development of a new industry, but just the same there is a point of obsolescence not only in the equipment of the mill but in the mill itself.

"The newer industries have recog-

nized obsolescence and have laid aside a surplus or fund for obsolescence, knowing that in a period of 10 or 15 years complete reequipment might be necessary. Under ordinary conditions I believe that the obsolescence period of cotton mill equipment, would be approximately 25 years and of a mill itself a period of 35 to 40 years; i. e., the changes in machine equipment are not rapid and the buildings will serve for even a longer period than the machinery, but I know from an actual case which I am not at liberty to mention that a certain new mill replacing an old one showed 30 per cent more production in the new mill with the same number of spindles together with a reduction of more than 10 per cent in the number of operatives. This alone would show a profit in the new mill where the old would show a loss.

### **How Machinery Men Can Help.**

"There are a lot of ways in which the mill engineer and the machinery man can help you. They visit lots of mills and know in a general way a great deal about the general layout of the mill, operation and product of the mill. The machinery man can show you where you could improve your opening and picking room equipment for there are new things in these lines. He might easily convince you that it is foolish to repair very old cards when it will only add to your expense account and not readily improve your assets, and even by repairing old cards it might improve very little the quality of the work. He will show you where the modern drawing frame will make an improvement in your work, or where perhaps you can dispense with certain doubling processes. He will tell you what the modern comber will do in the way of production and quality. He will prove to you how light running roving machinery with uniform tension, accurate builder motion and good fitting spindles and balanced flyers will improve your work and save you money. He will perhaps convince you that a modern spinning frame with tape drive and proper size ring to suit your work and a lot of other details are important to you. He will show you how you can improve the wind on your spinning frames to improve your spooling process, and he cannot help but convince you that as

(Continued on Page 34)



## Rayon the New Prodigy of the Textile World

By WILLIAM WHITTAM

Formerly Special Agent U. S. Department of Commerce in Great Britain.

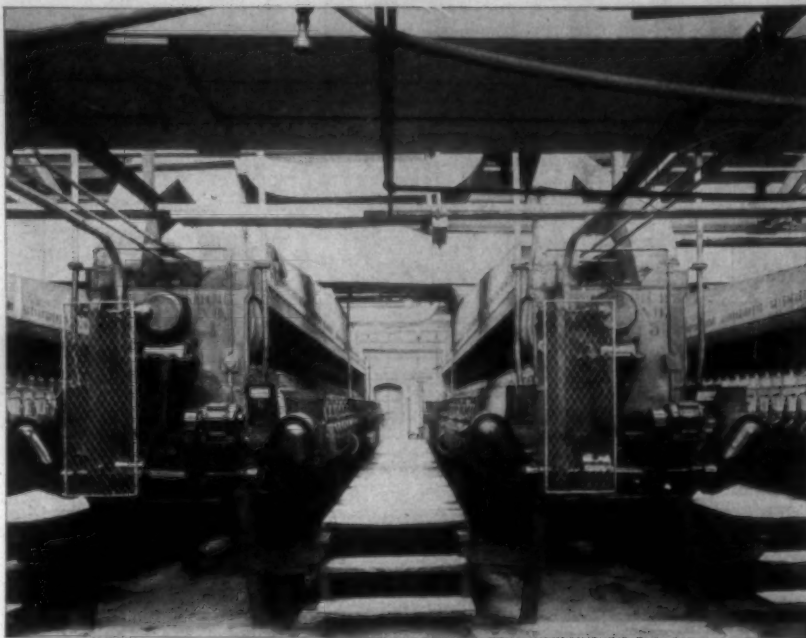
ABOUT twenty years ago two men came to America from England to promote a new industry. They failed in their mission. One was an American, the other an Englishman. Both were bent on interesting American capitalists in the then only known process for making artificial silk. They found the American purse string tied with a Gordian Knot that could be neither untied nor cut. The writer spent some time looking into the process they brought over and for years kept samples of the fabrics they exhibited. Later he chanced to be on the same steamer with them on their return to England and years afterward wrote a brief report on the English artificial silk industry for the Department of Commerce and sent with the report a careful of samples to Washington so that the Doubting Thomases among our textile leaders could examine them and perhaps become convinced of the attractions of the new entrant into the family of textiles.

Shortly after that report was published an American firm owning a new and valuable process was forced to suspend through lack of sufficient capital and the owners of the English rights were enabled to acquire the American rights also. The new owners then brought here equipment, skilled men and a million dollars and started the business of making artificial silk in this country. Since then that company has made scores of millions of dollars in profits from its American venture. How profitable this industry has been may be gauged from the experience of an English country parson, who, it is said, in 1913 invested \$500 in the pioneer company. His \$500 now has market value of \$1,500,000, to which is to be added the handsome dividends paid.

The filament—it is easier to call it a fiber—is only about 25 years old. The first process was developed and patented in France by Count Chardonnet in 1884. It has recently been decided that "Rayon" is to be the new name in American and England for the erstwhile artificial silk. It is not really an artificial silk, as the word "artificial" is commonly understood, nor is it an imitation silk, nor a substitute. It is a synthetic textile fiber, the first to be made by the hand of man. It is true that when Chardonnet began his experimental work his goal was to produce a synthetic silk fiber but his final achievement was an entirely new material which had none of the characteristics of silk except brilliancy and the "scroop" of real silk in feel and sound. In brilliance, some of the later varieties surpass the product of the silk worm. The original pursuit of Chardonnet was a fiber to be made by a chemical process and mechanical manipulation which would be in all respects the same as the silk filament from the cocoon. He ended by being a creator instead of an imitator.

Rayon has been taken as the name

This article is reprinted through the courtesy of Dun's International Review, wherein it originally appeared.



Courtesy of The Viscose Company

In the viscose method of making rayon from cotton or wood pulp the first processes resemble those employed in making paper. The cellulose is then converted into "viscose," which, in turn, is spun into rayon in the big machines here shown.

by the trade of its own. Another reason for the name was to protect the public against fraudulent imitations. Besides, though rayon is to be the generic name, the several radically different processes of manufacture yield fibers which differ greatly in almost every characteristic except the silky appearance which is common to all of them. It must not be assumed that because the new fiber is the first

one to be man-made on a commercial scale and is produced in almost every country in which textile manufacturing is carried on at all extensively, it has reached the stage where only refinements are to be expected in the future. Rather is it in the position that the automobile occupied twenty or so years ago. Up to the present it does not approach, much less rival the four natural fibers in utility. Neverthe-



Courtesy of The Viscose Company

Section of reeling department in a rayon mill, where rayon is first put into skeins after the cellulose solution has been spun into threads. All further treatment, such as washing and drying, is done with the yarn in the skein form.

less, its use is extending at a great rate. Last year production outstripped both linen and silk, the world output being more than 100,000,000 pounds, about four times that of ten years ago. Strange to say it is not pushing silk out of favor. The consumption of the real article grows steadily, some claiming that the use of the new fiber is stimulating the demand for the old. The United States leads in the production of rayon with 39,000,000 pounds last year. This year, one American company expects to make a total of 56,000,000 pounds. Last year Britain ranked next to this country with a production of 20,000,000 pounds.

How the new industry has permeated the textile centers of the world is shown by the number of separate concerns one or more plants in the countries named: England 13, Belgium 10, Czecho-Slovakia 7, France 31, Germany 30, Hungary 2, Italy 12. Japan, the greatest producers of real silk fiber, has 5, Poland, Holland and Spain 3 each, Switzerland 6, Sweden, Canada and Austria one each and the United States 15. In all there are over 200 plants. New companies are entering the field at frequent intervals, while many of the older ones are either extending their present plants or building new ones in other localities at home and abroad. Italy is increasing its output at a rate which bids fair to catch up with the American volume of production. Arrangements are under way to establish a mill in China. So rapid is the rate of development that today's figures will be out of date tomorrow. Current world output is estimated at between 300 and 350 tons per day.

Rayon, having an identity altogether separate from other textiles, requires different treatment from users. It is much weaker wet than dry, requiring especial care in washing. The strength is recovered on redrying. A standard practice for washing artificial silk fabrics has been adopted by the U. S. Bureau of Standards, working in co-operation with the Associated Knit Underwear Manufacturers of America. In brief, this is as follows: "Fabrics should always be washed in lukewarm water with soap suds. Hot water makes the fabric tender. Pure soap is essential. The fabric should not be rubbed, but should be squeezed and rinsed repeatedly until clean. Rough finger nails or rings worn on the fingers tear wet artificial silk fabrics very easily. After laundrying the garments should be hung over a line or in any other suitable place, but under no circumstances should clothes pins be used. In ironing care must be taken to avoid too hot an iron, medium heat is best."

There is one variety of rayon, made by the acetate process, which is waterproof, thus opening another avenue of useful application.

A fact that is not always considered when prices of rayon are compared with those of silk is that the specific gravity of the former is from ten to twenty per cent greater,



so that, as both yarns are sold by the pound, the apparent advantage of the synthetic is offset to the extent of the difference in weight of equal lengths. In spite of this, the luster and continuity of the new fiber, its close outward resemblance to silk, together with its relative cheapness, have bridged the wide gap between mercerized cotton and the product of the silk worm.

From time to time the question of the fire hazard of rayon has been raised. This is being answered in France where a syndicate has been formed to exploit a process developed in Belgium by which rayon yarns and fabrics are fireproof at an additional production cost of less than one per cent. It is also claimed that the fireproofing process increases resistance to the action of acids, alkalis, washing, hot irons and light.

It is not intended to imply that rayon is perishable. On the contrary, according to Samuel Courral, head of the largest producing firm in the world, one of its chief merits is that it consists of a chemically pure and stable substance as sound as any natural fiber and practically everlasting so long as it is not subject to mechanical wear and tear in excess of its strength. Fiber for fiber it is stronger than wool though, as will be shown later, weaker than the other natural textile fibers. Experiments are under way with the object of making finer filaments, in order to obtain greater pliability, softness, cover and warmth.

If it were feasible to set down a list of all the uses to which rayon is

put such a list would be surprisingly incomplete by the time this article reached the reader for the reason that new applications are being found daily. An army of trained researchers is constantly at work seeking them. The industry is at present in its kindergarten stage.

Though the new fiber was at first made only into coarse yarns, used for braids, fringes and so on it is now woven into fabrics as far apart as carpets and camisoles. Still, though a lusty infant in the industrial family, rayon is not yet out of its swaddling clothes.



Courtesy of The Viscose Company

Sorting department where rayon skeins are inspected and graded as "A," "B" or "C." The first is free from mechanical imperfections, while the others contain a limited number of them, which do not, however, affect the dyeing qualities or luster of the yarn.

Braid makers were the first to experiment timidly with rayon, which has now become practically the basic material of that industry, almost entirely displacing natural silk. Its use for decorative purposes as in stripes, borders and various kinds of figured effects is as wide as the textile industry, for it is so used in cotton, wool, silk and linen tissues. It is, however, the knitting trades that use rayon in greatest volume. Hosiery, underwear, outerwear and other knitted goods took used in 1924. Hosiery was the first branch of the knitting trades to take up its use and last year took half of the quantity consumed by all knitters. In England, hosiery uses half the weight consumed.

Limitations of space prevent more than passing mention of the many other leading uses to which rayon is put. Dress nets and various other kinds of laces are being turned out in quantity. Most of the initial difficulties of manipulation on the lace machine have been overcome. In neckwear producers are finding difficulty in keeping pace with the growing demand.

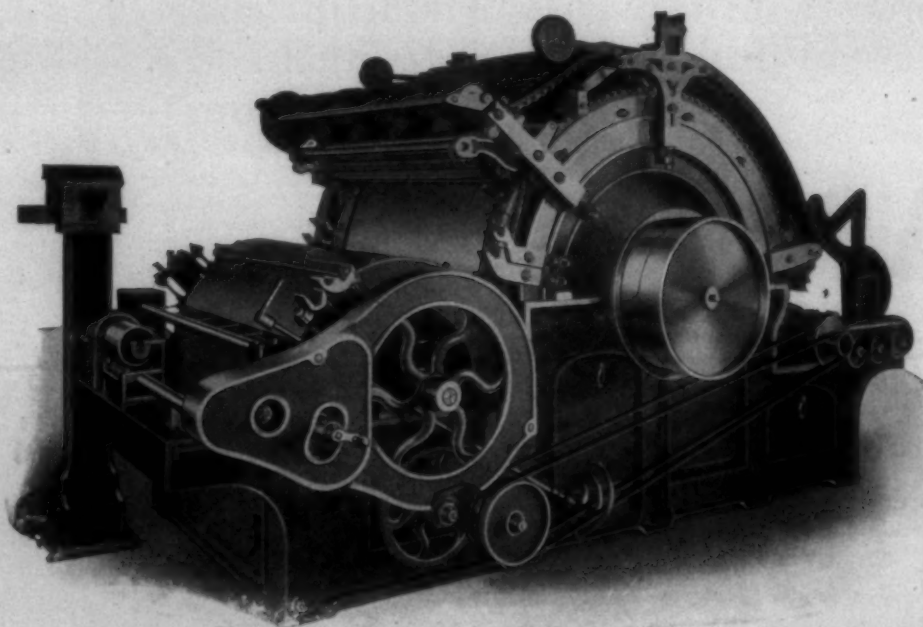
One manufacturer, in detailing its adaptability, states that rayon has been in general use for years in many other forms not commonly known by that trade name. Among the most note-worthy of these are silk-and-rayon brocades and tapestries, wherein the lustrous figure work is rayon. "In fact," to quote further from this manufacturer's account of rayon and its many uses

(Continued on Page 12)

## H. & B. AMERICAN MACHINE CO.

Pawtucket, R. I.

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Users

## COTTON MACHINERY

## Why Cotton Mills Have Been Moving South

By Richard Woods Edmunds

Richard Woods Edmunds, writing in the Boston News Bureau, of Boston, Mass., recently presented a series of articles dealing with the movement of cotton mills from New England to the South. He covered the subject so thoroughly and with such keen insight into real conditions in the South, that we secured special permission from the Boston News Bureau to reprint his articles.

Because Mr. Edmunds handled this subject in such an interesting and authoritative manner, we believe that his articles will be read with interest and appreciation by all Southern mill men.—Editor.

### Some Minority Views and Home Ownership.

If we could bring together in one gathering all the men and women I talked with in this investigation, we could start an animated argument on almost any of the Opinions I have expressed, and it seems fair to give the minority a hearing. Some of them may know more than the majority.

I remember one man I talked with who disagreed emphatically with my view that the Southern mill help is the lowest stratum of the Southern farming class; or, as I put it to him, the lowest class of trained Southern white labor. That man was C. W. Coleman, superintendent of education of the City of LaGrange and also in charge of the education and welfare work of the four Callaway mills in LaGrange.

### The Question of Intelligence.

Mr. Coleman pondered the proposition as I put it to him, and finally replied that he believed the mill help would rank as well in energy and mentality as any other large class of skilled labor, as carpenters or plumbers, for instance. He may be right. When the proposition is thrown into that form I have very little to say about it; and the question raised is one that could only be answered by an elaborate statistical survey. Brown Mahon, vice-president of the big Judson mill in Greenville, S. C., which makes a complete line of fancy weaves of silk, rayon, long-staple cotton and mixtures of them, told me the average Southern mill help can be trained to do the finest kind of textile mill work; and this opinion is held by mill men, both in the South and in New England, who have had experience with the New England and Southern mill help. But mill work

is not so difficult after all, and while mill help in the South will undoubtedly compare favorably with that in New England for ability and intelligence, I cannot believe it is up to the standards of work requiring greater skill and intelligence. I have attempted no comparison between Southern and Eastern mill help. All my discussion has been of various classes of Southern people, and my point simply is that the tenant-farmers as a class will not rank so high in intelligence, energy and thrift as the farm-owning class.

Richard H. Edmonds, editor of the Manufacturers' Record, reviewing the preceding five articles for me before they went to publication, and he writes: "Looked at from the average viewpoint, your letters are correct. If I had studied the problem and written these letters, I should have made doubtless a more favorable report on the mill people, because I should have viewed them from the background of the utter poverty and wretchedness in which they lived prior to getting work in the mills."

### One Observer's Views.

"Let me quote a statement which I may or may not have mentioned to you in the past. About 1904 I took a party of five New England cotton mill people to the South, headed by Wm. C. Lovering, then president of the Arkwright Club of Boston. These five men were sent out by the Arkwright Club to study cotton mill conditions in the South. I took them through a large number of cotton mills, especially in the Carolinas. In one mill, as I remember it a large knitting mill, the superintendent told us he had managed mills in England and in New England, but never in all of his experience had he found such a superior class of operatives as he had in his Southern mill."

"These women," said he, "are of the very highest class of laboring people. Their morality is above question. Indeed, the mill people themselves make it absolutely certain that no immoral person can be employed in the mill."

"We had already seen a large number of other mills, and when Mr. Lovering, then head of the Massachusetts Mills, of Massachusetts, came out of that mill he turned to me and said: 'Mr. Edmonds, if anyone ever

(Continued on Page 14)

## DUPLAN SILK CORPORATION COMMISSION DEPARTMENT

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JOHNSTON BUILDING, CHARLOTTE, N. C.

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## *Announcement*

The Universal Winding Company, Boston, announces the opening of an office at 1326 Candler Building, Atlanta, Ga.

**MR. JESS W. STRIBLING, *Representative***

Feeling that the interests of our clients can be better served by our having two centrally located offices in the South, we have opened an office in Atlanta, while still maintaining our office in Charlotte, N. C.

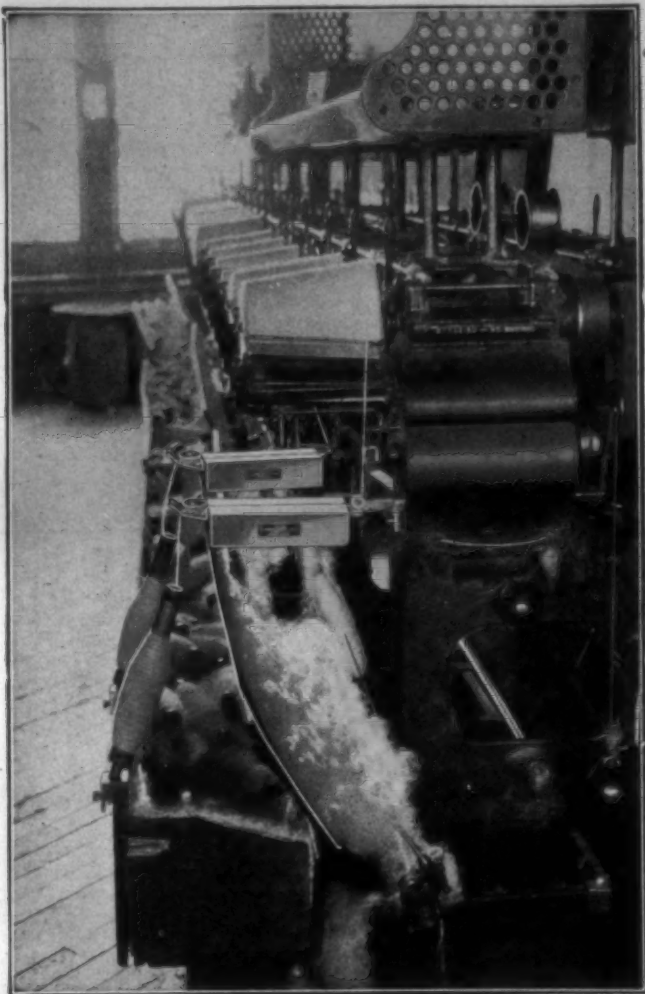
Our Atlanta Office is opened for the express purpose of taking care of the requirements of our good customers in the States of Tennessee, Georgia, Florida, Alabama, Mississippi, Louisiana and Texas.

Mr. Stribling, having had a varied experience in Southern Mills, is qualified to handle all winding proposals.

**UNIVERSAL WINDING  
COMPANY**



**BOSTON**



## The Truth About Slubs

It does not require inventions to make slubs, but often they are made, and that is another story.

We wish to tell you that the Eclipse Automatic Yarn Cleaner is sure death to slubs. The Eclipse Cleaner not only catches all the slubs but thoroughly removes all the dirt in the yarn.

Many knitting mills and spinning plants realize the extreme value of the Eclipse Cleaner, and are equipping their entire winding capacity with the Eclipse Cleaners. The basic principle of good knitting and weaving is thoroughly clean yarn.

Why make yourself believe you are getting the best results when you can absolutely improve your yarn with the Eclipse Cleaner.

The Eclipse Cleaner is easily attached to your winder. It does not add any additional cost to your winding costs. Upon request we will cheerfully give you a demonstration.

## Eclipse Textile Devices, Inc.

Elmira, N. Y.

Makers of

Automatic Yarn Cleaner, Automatic Stop Motion, Yarn Tension Device  
Eclipse Van Ness Dyeing Machine

## Rayon the New Prodigy of the Textile World

(Continued from Page 9)

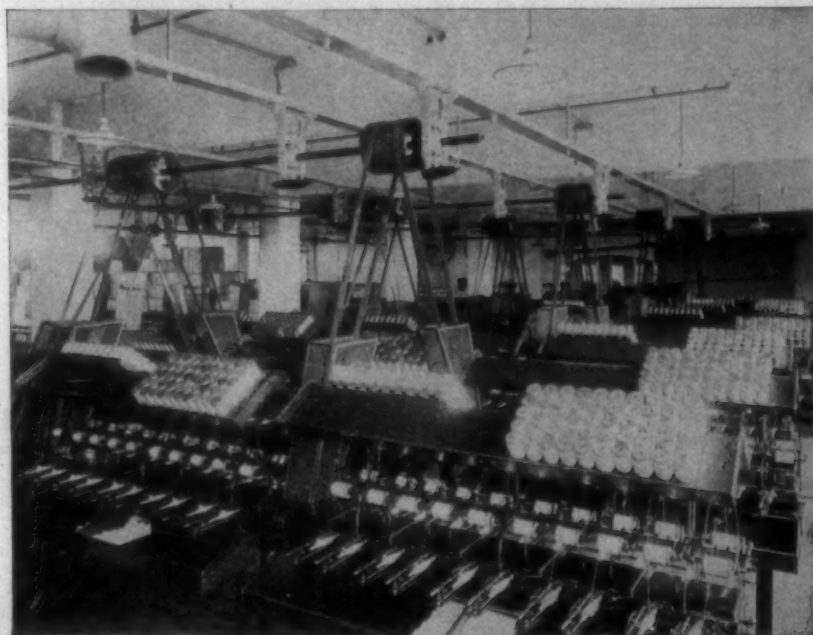
and forms, "it is our most versatile fiber, and is equally serviceable in the home, in evening apparel, in sports wear and in underwear, finding as many uses in the scheme of things as any of the other fibers.

"The most commonly recognized form of rayon is the knitted fabric used in sweaters, scarfs, women's underwear, hosiery, and other articles of apparel, and it is finding its way into many of the finest dress materials used, often accounting for the lustrous sheen of fine silks. In woolen materials it is being employed for decorative stripes and patterns, and the popular knitted sports dresses and suits are almost all of rayon exclusively. In many figured voiles, mulls and other cotton materials, rayon is evident on the silky stripes and patterns.

"Fabrics and garments made of

the one hand, or stiffness on the other do not matter, the only really satisfactory way to use artificial silk in a woven fabric is to combine it with another material, as for instance, putting rayon weft across a cotton warp, or by alternating threads of rayon and real silk or by twisting these together.

It is with cotton that rayon goes best for appearance, and all round lasting satisfaction, perhaps because both are vegetable fibers, although linen comes inn that category. The weight of experienced opinion leans to combinations of cotton and rayon as the basis of ideal fabrics of beauty and durability at popular prices. One very competent authority declares this combination to be such an ideal partnership as to place the new fiber on a basis of assured consistent production founded on demand of necessity and not on temporary requirements of luxury or fashion. It has even been said that cotton cannot be separated from rayon if rayon is to live. Woolen



Courtesy of The Viscose Company

Section of quilling and copping department where rayon is transferred from spools to the forms needed for the weft in weaving. These forms vary according to the product to be manufactured, but each has become practically standardized.

rayon are of many different qualities, as is the case with other fibers. The better grades of rayon garments are as desirable and dependable as other good materials, when used appropriately and treated properly. One of the best recommendations of rayon is its acceptance by other textile industries. Its worthiness could not be established better than by its combination with silk, wool and cotton in diversified materials."

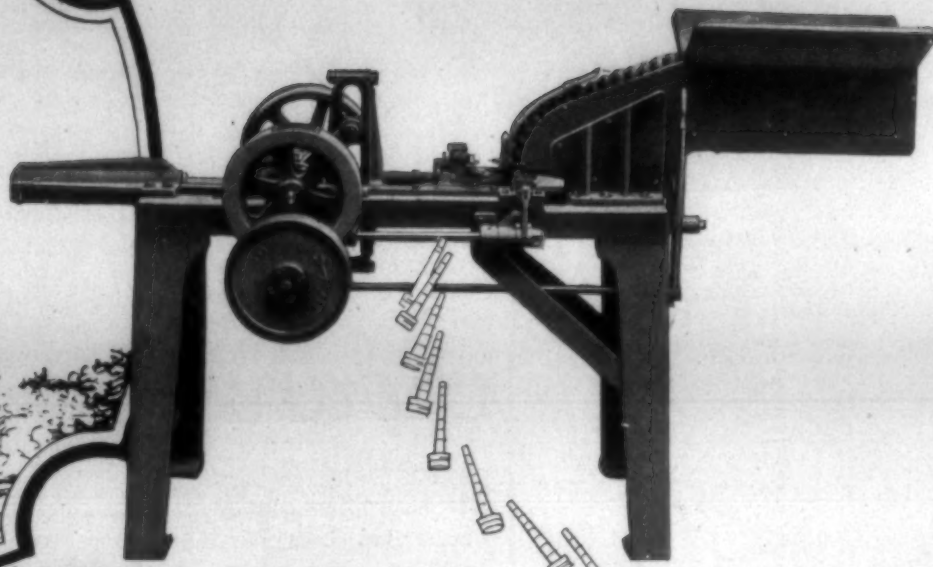
Mixed with other yarns and fibers rayon is irresistible. Its lustrous sheen imparts life and radiant richness to the lightest gauze no less than to other weaves, all the way through to draperies, tapestries and carpetings. There can be found no better authority on its use than Samuel Courtald, already quoted. He declares that apart from the mere decorations of more serviceable fabrics such as stripes, etc., mentioned above, and excepting a few specialties in which fragility on

mills, however, are experimenting with mixtures of rayon for both men's and women's wear fabrics. Scotch weaves toned down to pastel shades, English weaves for sports and a number of other attractive cloths are among the first offerings. Often the two fibers are mixed before spinning, enabling the yarn to be dyed so as to bring out contrasting colors.

Though cotton claims the ultimate dominant partnership, it is in the silk industry, in America at any rate, that rayon is at present of outstanding importance in the field of woven textiles. In addition to its use in an increasing range of broad silks, velvets, plushes and imitation furs, it is used in narrow loom fabrics such as tie silks, millinery, all-overs, ribbons, labels, belting, etc. Quite recent advices from Belfast emphasize a vast and promising future for the linen manufacturers of

(Continued on Page 32)





The Single End Utsman cleans about 40,000 and the Double End Utsman cleans approximately 80,000 feeler bobbins each working day.

Such cost cutting, labor saving speed is attained without splintering or injuring the bobbins. In fact bobbins are cleaned more thoroughly and carefully than by any other method.

*"Two of your machines . . . take the place of five machines which they superseded at a saving of \$1,665.00." "Long since paid for itself." "Saving in labor alone has more than paid for this machine." "Would require at least 10 or 12 men to clean the quills by hand that are being cleaned by this machine and 4 men. There is a great saving in quills." "Does the work thoroughly and without injury to bobbins." "Does not damage the quill which in the course of a year is a great saving." "The cost of repairs has been very little as compared with the average labor cost."*

These are but a few of the statements on file from the hundreds of mills where Utsman machines have given years of cost-cutting and more efficient cleaning service.

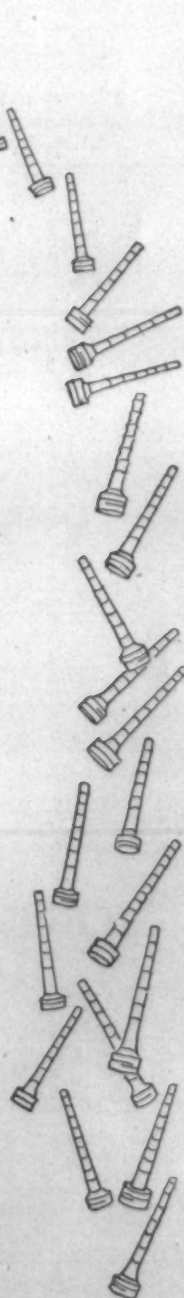
Just write us you are interested in better quill cleaning, and we will send you some mighty interesting figures and facts.

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in the hardwood belt  
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at Johnson City, Tenn.,  
and Monticello, Ga.

FROM our start three generations ago, Quality has been the word oftenest heard in any Jordan plant. Since precision is the lifeblood of quality, and hurry precludes precision, we have never felt it possible to make Hurry an idol here.

SLIPSHOD methods have scant tolerance in American industry, at worst. They never found a crevice to cling to here. They never will, while the Jordan standard of accuracy governs. That standard demands the nearest to absolute precision which human skill can attain; and we hold that neither more nor less is good enough for us or for you!

**JORDAN Manufacturing Co.**  
MONTICELLO, GA.

*Jordan*  
*Precision*  
**Bobbins**

## WHY COTTON MILLS HAVE BEEN MOVING SOUTH

(Continued from Page 10)

says to you that the mill people of the South are not superior to those of New England and are not capable of higher development for skill in fine work, you can simply reply to them that such a statement would mean that the lowest class of foreigners are really superior to the Anglo-Saxon people in Southern mills. You have in the South exactly the same class of labor that we had in New England mills prior to the Civil War.' (Note: This statement was published in the Manufacturers' Record twenty years ago and has often been quoted since.)

### New Englander Bought Five Mills in South.

"Mr. Lovering and the others with him were so deeply impressed with the character of the Southern mill help that out of that trip five mills, each costing over \$1,000,000 and now each representing an investment of over \$2,000,000, were built.

"I could write a series of articles which would be entirely true, and which would yet be somewhat in conflict with yours. At least they would present a more optimistic picture than yours, but I cannot say that as a whole they would be a better photograph of conditions. I am not, however, presenting these points as a criticism, because I find you have carefully tried to hold an even balance between the good side and the evil side."

Cason Callaway, treasurer of the four mills that employ Mr. Coleman, expressed a view somewhat similar to that of Mr. Coleman's. Mr. Callaway thinks the Southern mill labor is capable of producing great people, and as an illustration he cites the fact that whereas ten years ago you could not have driven any of the mill boys into a public-speaking class, today the public-speaking class of the Callaway mills has thirty-five boys, and one of them, Aubrey Lauderdale, won the State championship this year in the National Oratorical Contest on the Constitution of the United States. He believes this initiative and interest is innate, and is simply given a chance for expression by better environment. I suppose every biologist in the country will agree with Mr. Callaway when he says that whatever talents the children have are innate in the parents and could have been developed by the right sort of environment.

Mr. Callaway is right also in believing the mill people are capable of producing able leaders. They have already done it, and I talked to several of them. The question raised by this discussion is whether the proportion of leadership among mill people is as high as it is among some other class of people. This could be definitely settled only by an elaborate statistical survey. Some of the men who know them best think ambition is less common than it was 20 to 30 years ago, and they attribute this to the excessive paternalism, which they believe robs them to some extent of incentive and teaches them to lean on the mill too much for support. Mr. Callaway says that no people can have much ambition when they have to labor from daylight to dark, eat just about three kinds of food from the cradle to the grave, live in pitiful shanties in numbing isolation, and wind up every day too weary to do anything but fall on the bed when night comes.

### Southern Mill Workers Have Possibilities.

In all of these views Mr. Callaway may be right. Certainly he is splendidly right in his enthusiasm for the work he is doing for his people, for they are capable of astonishing improvement, and the fine fruits of such work are evident all over the South today.

For keeping the more intelligent of his young people interested in mill work, Cason Callaway has a prescription that is different from that of any other man I came across, but in some points is similar to that suggested to me by Mr. Greene of Lockwood, Greene & Co. last winter in Boston, and published in the Manufacturers' Record for Feb. 26. He teaches his help that mill work is not the simple, easy thing it is cracked up to be, but that to be done properly it must be done thoughtfully and intelligently. He follows that doctrine up with an effort to make the work what he says it is, by cutting out as much simple manual labor as possible multiplying the machine tasks, making machinery to that extent more complicated and at the same time making each man more productive. This, he believes, has the double effect of interesting the more intelligent youths who want to use their heads in their work, and enabling each worker to earn more money. I don't know how far he has already been able to carry this program, but I do know that if he succeeds in going far with it he will confer a blessing on mill owners and mill operatives alike.

Another question on which I found a difference of opinion is on the relative merits of mountain and lowland mill help. Brown Mahon, president of the Judson mill, told me most of his help comes from the mountains of western North Carolina and Tennessee, but that some of it comes from the lowlands. He said that in the Judson mill no difference between mountain and lowland people had ever been noticed, and he attributed the preponderance of mountain people in a fine-goods mill to the location rather than to the more exacting nature of the work.

### Home Ownership.

Mill-housing arrangements are so important a part of any consideration of the position of Southern mill help that it should be discussed at some length.

"In New England most country mills own villages comparable with

(Continued on Page 31)

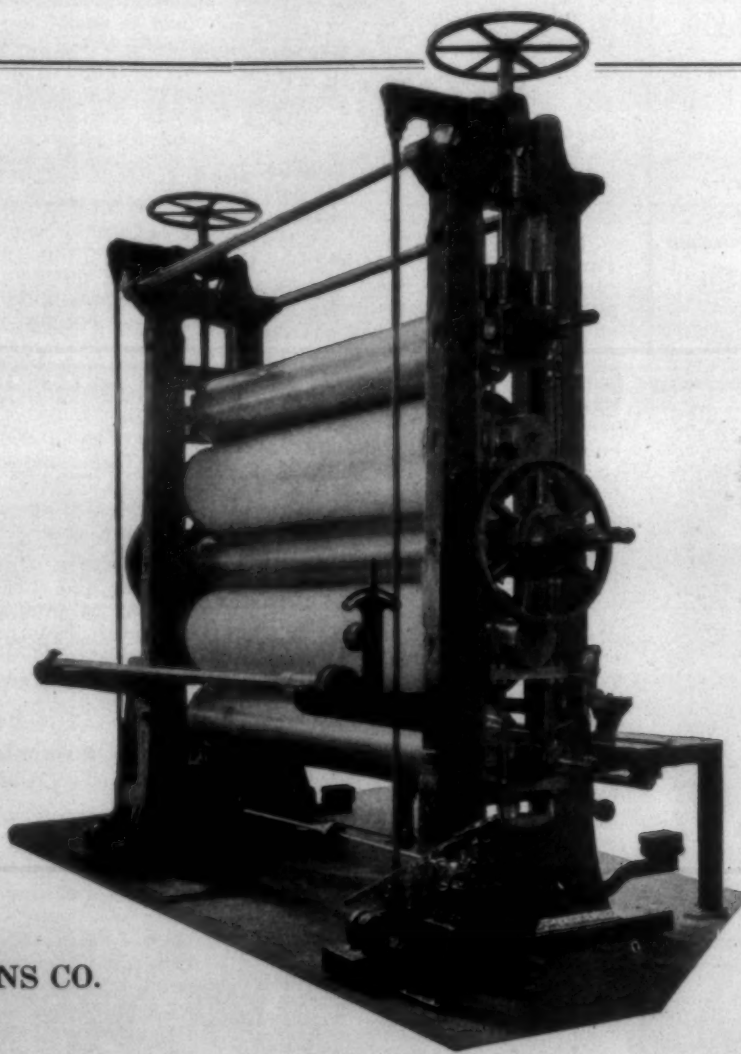


# Five roll calender with hydraulic jack

The hydraulic attachment on this calender parts the rolls when it is necessary to let the calender stand idle from time to time. This saves climbing to the top of the machine 13 or 17 feet and parting the rolls by means of a hand wheel.

The jack is fitted with single action hand operated hydraulic pump, while the calender is fitted with a pair of hydraulic cylinders and rams. There is a latch on the calender which holds the rolls in place while the calender is in operation. When necessary to part the rolls, a few strokes of the pump releases latches and allows rolls to part. The distance between the rolls is governed by the position of the saddle at the end of the journals. Through this jack, an operation which ordinarily requires two men and from 10 to 15 minutes of time is done by one man in about two minutes. In places where a motor driven raising and lowering apparatus is being used, the motor and other parts of the machine, apt to drip oil and cause no end to dirty goods and seconds, are eliminated.

The two filled rolls of this calender are both cotton and husk. The three chilled iron rolls are fitted for steam heating. The drive is by motor, direct connected through close connected helical gears which assure plenty of power and silent operation. The calender is lubricated by a gravity oil system which supplies lubricant directly to the part which requires constant lubrication. The calender has heavy housings; knee brackets, tension bars with friction let-off and can be equipped with either slip belt winder or other winding devices.



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*Established 1820*

**PHILADELPHIA, PA.**

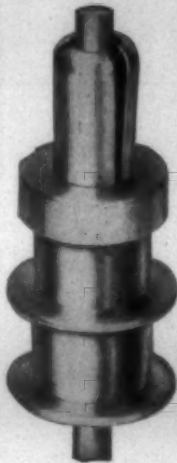
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### Look Over Your Spindles Now And Be Prepared



Get 8 to 10% more yarn on your bobbins by equipping your spindles with our Patented Clutch.

Don't run your spindles with worn out whorls cut in by bands, which changes the speed of your spindles, therefore making uneven yarn.

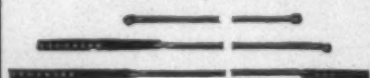
Let us change your whorls on spindles, repoint and restraighen same, and save you money.

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## Practical Discussions By Practical Men

### End for End.

Editor:

I have an odd spinning frame which has the pulley at the wrong end to fit in where it should be placed. Can this be changed end for end?

Inquirer.

### The Age of Yarns.

Editor:

How long can yarn be kept and still retain good running qualities. That is how long can yarns be kept without deteriorating? Has any reader of the Southern Textile Bulletin any information to give on this subject?

Stock.

### Answer to A. T. K.

Editor:

Try all of your empty bobbins on a good running spindle. All bobbins that vibrate are out of balance and will vibrate and reduce the twist. Throw them out. Also look for overworn spindles, slack bands, imperfectly lubricated spindles, broken bolsters. Perhaps you have some spindle bands much larger than others. This will surely make slack twisted yarns. Also bands that are loaded with waste. Waste bound spindles will do the same thing.

Charleston.

### Answer to Trader.

Editor:

In order to make Macrame twines or yarns, it takes three twisting operations as follows: First, hard twisted single yarns; second, hard twisted plied yarns twisted in the same direction as the single yarn; third, take two or more of the above plied yarns and twist them in the reverse direction until the yarn has a balanced twisting, i. e., when the final or third twisting operation is finished, take—say one yard of the finished yarn. Take one end in each hand and bring the hands together letting the yarn hang in a loop. If the yarn remains stationary without back twisting or remains balanced the yarn is already for market as a good Macrame twine.

Yarn Maker.

### Answer to Ola.

Editor:

The age of machinery is always an interesting question. The writer knows for a fact that there is a great deal of machinery now in operation in some mills that is over 50 years old—like looms. Looms last longer

than any other part of a mill equipment. There is no doubt but there are some very old mills operating now with some part of the equipment nearly 100 years old. A number of mills in Fall River have looms that are over 50 years old. Owing to the rapidity with which machinery is improved nowadays, the economical working life of textile machinery is being considerable shortened. The average economical working life of machinery used to be about 20 years. Now it is considered less than 15 years. Some mills are now throwing out good old machinery which is much better than is being operated in the majority of mills. Manufacturers who can afford to make improvements, figure that it is much cheaper to keep up to the improvements than to operate with antiquated equipment. Here is an illustration. A mill has machinery which manufacture goods at 10 cents per pound. A new equipment will make at 8 cents per pound, thus 20 per cent of the cost is reduced. Now if a plant has an annual output of 5,000,000 pounds per year, \$100,000 is saved per year. This represents 10 per cent on \$1,000,000. All right, the company may borrow that amount at 5 per cent to equip its plant with new machinery and clean up \$50,000 after paying the other \$50,000 for interest. Some 35 years ago a mill was throwing out some looms and gave them away to another mill for the carting away. These looms are operating now and making a grade of dress goods.

It is worthy of notice to state that not long ago a slubber was lengthened by 16 spindles. This machine had been in constant use for forty-nine years, but all of the bearings in this frame were in fairly good condition.

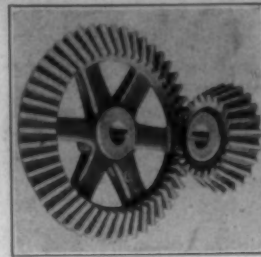
Mathematics.

### Answer to A. T. K.

Editor:

In answer to A. T. K. who wants to know the cause of slack twist on twisters and how to eliminate the evil. Will say several things will cause slack twist. Namely, slack bands, crooked spindles, spindles not being properly oiled, whorls too small for type of spindles, bobbins too large or too long or too high speed. I will recommend he take off a few bobbins that vibrate, put them on other spindles which are running all right, if they still vibrate, the trouble is in the bobbin and all bobbins found to vibrate should be picked out and destroyed, but if they run all right after being changed he will find the trouble somewhere in the above causes. I believe his main cause is high speed.

S. C.



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All gears cut on automatic gear generating machines.

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**Bevel Gears**

3 pitch 18 inches or smaller.

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We specialize on heat treated steel motor pinions, Gears for Pickers, Cards, Lappers, Combers, Drawing, Roving and Spinning Frames, Spoolers, winders and all textile machinery.

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Steel, Iron, Bronze, Rawhide or Fabroid materials.

Send drawing or sample gear.

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### Made Especially for Textile Mill Floors

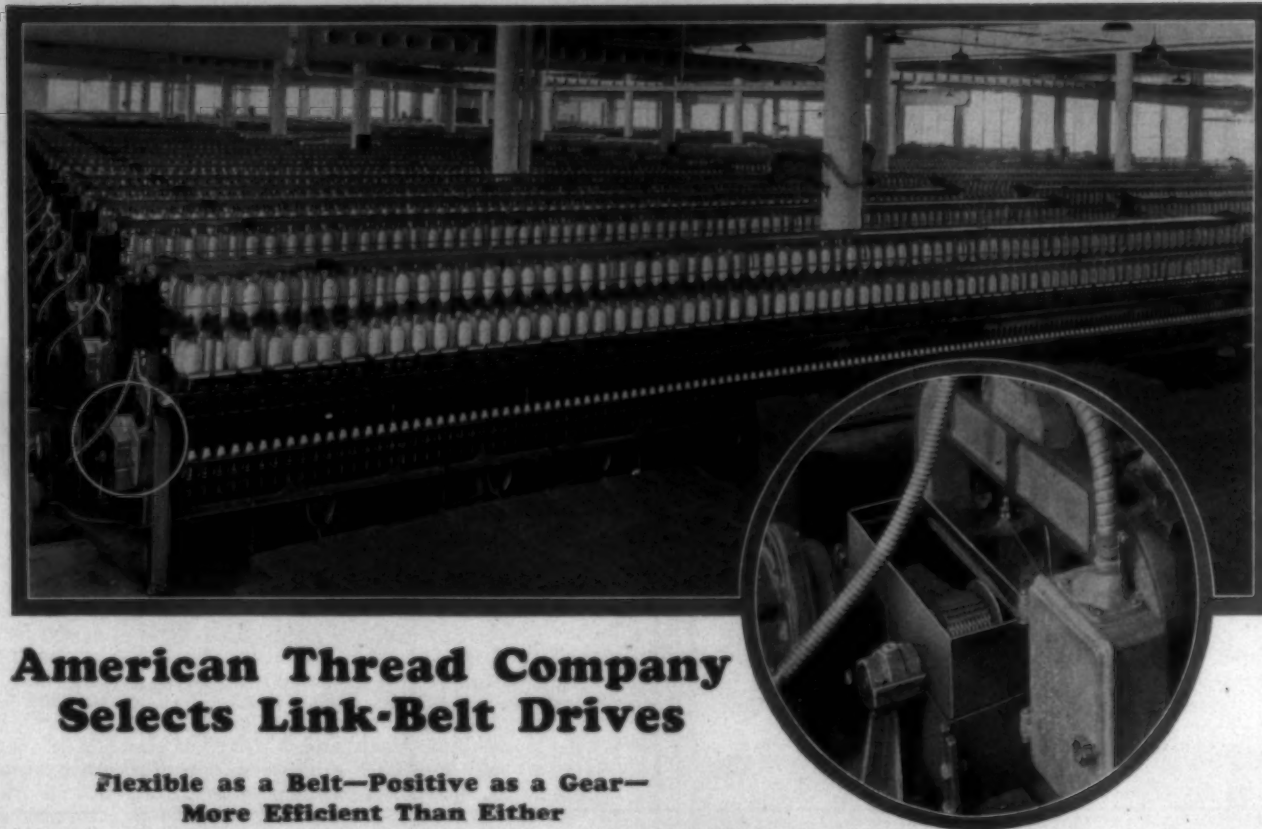
Hundreds of Mills have adopted MI CLEANSER and are enjoying cleaner floors at lower cost. It is entirely free from eating properties, cleans quickly and leaves no slippery surface.

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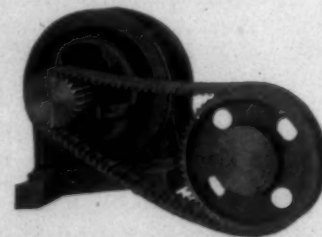
## American Thread Company Selects Link-Belt Drives

**Flexible as a Belt—Positive as a Gear—  
More Efficient Than Either**

ANOTHER testimonial to the effectiveness of Link-Belt Silent Chain Drives is the adoption of this 98.2 per cent efficient (on actual test) power transmission by the American Thread Company for driving the Spinning Frames in their Dalton, Ga., plant. A view of the spinning room is shown above. A typical drive is shown in the insert. Selected because of their ability to transmit power at uniform, sustained speeds, without loss or slip, Link-Belt Silent Chain Drives help materially in maintaining the maximum production of the Spinning Frames, and in producing a high grade, uniform product. These advantages and many others are fully explained in Book No. 765.

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Link-Belt Silent Chain Drives, from  $\frac{1}{2}$  to 10 H. P., in almost any speed ratio from 1 to 1 up to 7 to 1, can now be obtained from stock from a Link-Belt Distributor near you. Send for Book 725, or name of your nearest distributor.



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The use of NOPCOV in finishing results in a very much finer, softer feel to the goods, better lustre, **entire absence of odor**, and a freedom from any tackiness such as is often encountered with turkey red oils or other oils made from castor oil base which are always, by nature, more or less sticky.

On account of the small quantities of NOPCOV required to produce definite effects and the superior results produced, this oil falls into a class by itself from both a quality and price standpoint.

## National Oil Products Co.

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### Dividends At Spartanburg

Spartanburg, S. C.—Approximately \$600,000 in dividends will be distributed by cotton mills of the county on January 1. While this represents the profits accruing from mills which distribute dividends locally, it does not include the earnings of a number of other plants which are subsidiary companies to corporations located in other towns. Included in this latter class are the Pacific Mills and Bleachery at Lyman, Tuacpau, Mills Mill at Woodruff, Appalache, Fingerville, Valley Falls and Victor.

While it is not possible at this time to ascertain exactly the amount of money to be paid boards of directors of a number of mills have not declared dividends, the estimate is based on the belief that little change will be made from the earnings in July. This assumption is thought to be tenable because the boards that have held meetings have declared identical dividends with those paid in July.

A majority of the local mills pay dividends semi-annually, one exception being Enoree which pays quarterly.

Dividends have already been declared by Pacolet, Spartan, Drayton, Converse and Clifton. These were as follows: Pacolet, 5 per cent on \$2,000,000 common stock and 3 1-2 per cent on \$2,000,000 preferred, total, \$17,000; Spartan, 4 per cent on \$2,000,000 common stock, total \$80,000; Drayton, 3 1-2 per cent on \$350,000 preferred, total \$12,250; D. E. Converse company, 3 1-2 per cent on \$1,000,000 common, total \$35,000; Clifton Manufacturing company, 4 per cent on \$2,500,000 common, total, \$100,000. The total amount of dividends already declared is \$397,250. Directors of Whitney have also met, but dividends were not passed.

Other mills which declared dividends in July are as follows: Arcadia, 5 per cent on \$200,000 common and 3 1-2 per cent on \$800,000, total \$38,000; Arkwright, 4 per cent on \$200,000 common, total \$8,000; Beaumont, 5 per cent on \$200,000 common and 3 per cent on \$200,000 preferred, total \$16,000; Chesnee, 5 per cent on \$394,000 common, total \$19,745; Cowpens, 4 per cent on \$100,000 preferred, and 2 per cent on \$400,000 common, total \$12,000; Enoree, 1 3-4 per cent on \$365,000 preferred, total \$6,387.50; Inman, 3 1-2 per cent on \$600,000 common, total \$21,000; Jackson, 4 per cent on \$345,550; total \$13,822; Saxon, 3 per cent on \$900,000 common, total \$27,000; Woodruff, 3 per cent on \$787,500 common, total \$23,625.

### November Cotton Consumption

Washington, Dec. 14.—Cotton consumed during November totalled 543,098 bales of lint and 65,966 of linters compared with 543,679 of lint and 75,750 of linters during October this year and 495,182 of lint and 52,5524 of linters during November last year, the census bureau today announced.

Cotton on hand November 30 was held as follows:

In consuming establishments 1,

456,166 bales of lint and 106,370 of linters, compared with 1,216,437 of lint and 82,606 of linters on October 31 this year and 1,049,327 of lint and 97,379 of linters on November 30 last year.

In public storage and at compresses 5,206,283 bales of lint and 36,608 of linters, compared with 4,499,382 of lint and 28,694 of linters on October 31 this year, and 4,802,943 of lint and 49,928 of linters on November 30 last year.

Imports during November totalled 27,000 bales, compared with 12,402 in October this year and 17,549 in November last year.

Exports during November totalled 1,206,786 bales, including 11,156 bales of linters, compared with 1,421,482 including 17,311 of linters in November last year.

Cotton spindles active during November totalled 32,892,324 compared with 32,425,206 during October this year and 31,853,088 during November last year.

Statistics for cotton growing States included:

Cotton consumed during November 382,136 bales, compared with 366,099 during October this year and 247,823 during November last year.

Cotton on hand November 30 was held as follows:

In consuming establishments 1,007,567 bales, compared with 894,725 on October 31 this year and 704,164 on November 30 last year.

In public storage and at compresses 5,074,805 bales, compared with 4,407,513 on October 31 this year, and 4,535,591 on November 30 last year.

Cotton spindles active during November numbered 17,107,692 compared with 16,890,532 during October this year and 16,691,304 during November last year.

### Piedmont Cities Seek Rayon Plant

Greensboro, N. C.—Concerning information on raw water for the manufacture of rayon, Gov. Angus McLean, of North Carolina, has notified the Greensboro Chamber of Commerce that as yet the North Carolina Conservation and Development Commission is not in a position to supply information that was sought.

The Greensboro Chamber of Commerce wanted data on analysis of raw water for streams in Guilford county. This was needed in presenting claims of Greensboro and surrounding territory to rayon manufacturing corporations for consideration, when question of establishing rayon plants in the South comes up. Authoritative facts were wanted on flow of streams and analyses, running through 12 months.

Meanwhile, it is learned that several cities in the Piedmont section of North Carolina, South Carolina, and Virginia are preparing data to be submitted to H. Smith Richardson, of this city, who is gathering material concerning the feasibility of rayon manufacturing in the section. In the list are Richmond and Roanoke, Va., High Point, Durham, Winston-Salem and Charlotte, N. C., Greenville, Spartanburg, and Anderson, S. C.



# The FRANKLIN PROCESS

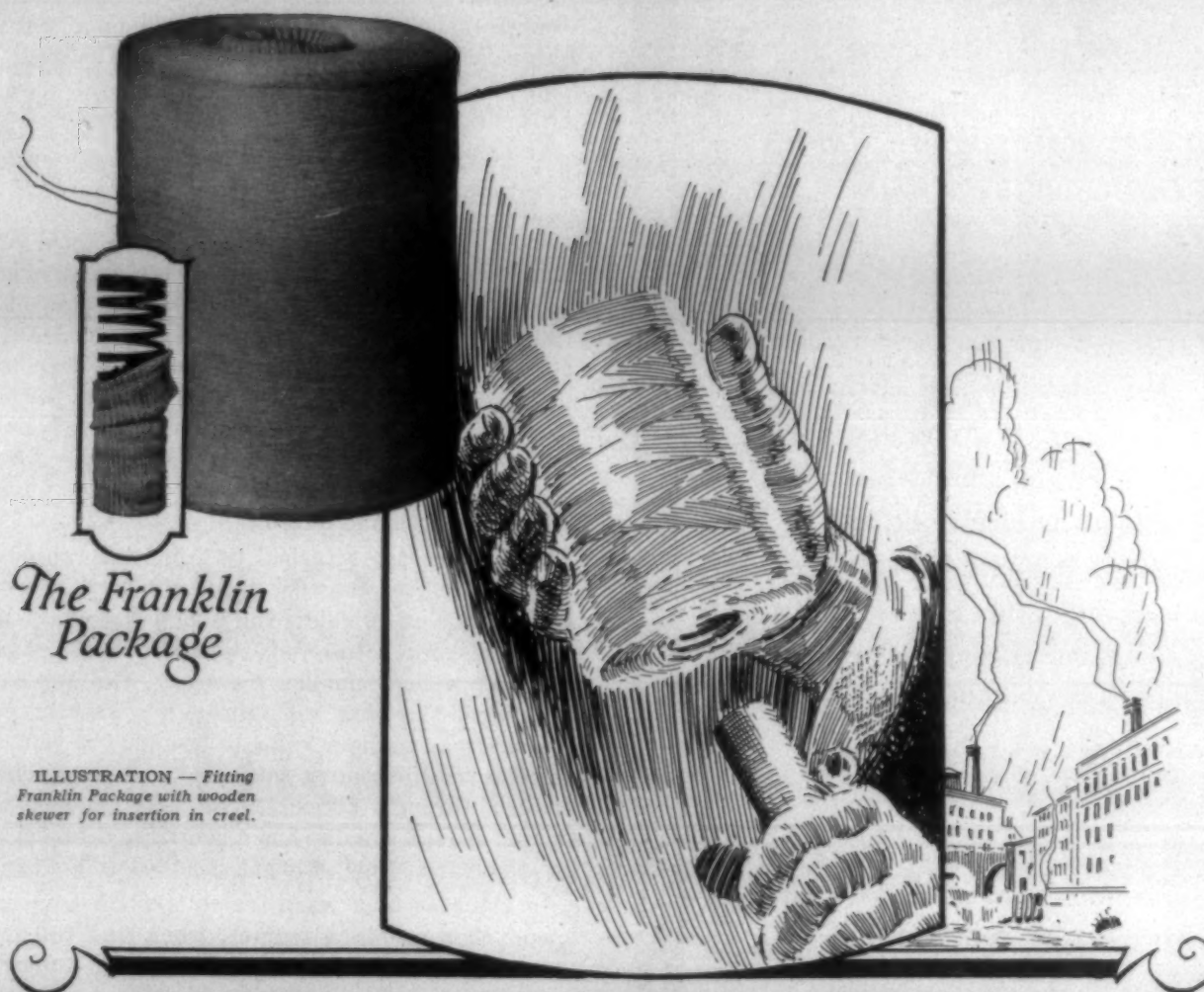


ILLUSTRATION — Fitting Franklin Package with wooden skewer for insertion in creel.

## ELIMINATES ONE WINDING OPERATION IN COTTON WEAVING MILL

Chain warp dyeing requires three winding operations:

- 1—spooling.
- 2—ball warping.
- 3—beaming.

Franklin Process dyeing requires two winding operations:

- 1—winding Franklin Packages.
- 2—warping.

The Franklin Process, in addition to eliminating one winding operation, reduces your investment in equipment by eliminating the necessity for ball warpers or beamers.

It also replaces beaming with warping, which, on fine counts, effects a considerable saving.

Do you wonder that in the aggregate the use of Franklin dyed and packaged yarn is saving some mills as much as 5c. a pound in winding costs?

Can we save you money by this commission dyeing service? Our new de luxe book, "The Franklin Process—Its Contribution to the Textile Industry," will probably answer this question for you. If you are a mill executive send for copy now. No obligation.

## FRANKLIN PROCESS COMPANY

Largest Job Dyers of Yarns in America  
also Yarn Spinners, Manufacturers Glazed Yarns

PHILADELPHIA

PROVIDENCE

DENTON, ENG.

New York Office: 66 Leonard Street

SOUTHERN FRANKLIN PROCESS COMPANY  
Greenville, S. C.

## COMMISSION DYERS OF YARN IN THE WOUND FORM

**NATIONAL SERICHROME GREEN G  
FOR FABRICS WITH SHOT  
OR STRIPE EFFECTS**

**T**HIS new dye possesses excellent solubility and fastness to washing, potting and perspiration. It has no affinity for cotton, silk, or artificial silk, and is therefore recommended for fabrics containing thread effects. It is applied by the after-chrome process, and combines with all dyes belonging to that group.

National Aniline & Chemical Co., Inc.  
40 Rector Street, New York, N. Y.

BOSTON	PHILADELPHIA	SAN FRANCISCO
PROVIDENCE	CHICAGO	MONTREAL
HARTFORD	CHARLOTTE	TORONTO

**NATIONAL DYES**



**Cotton Mill Processes  
and Calculations**

By D. A. Tompkins.

Copy Revised for Third Edition.

(Continued From Last Week)

Makers of spinning frames send men out with new machines, who adjust rings and spindles, as well as other parts, and start them up in perfect order; but these details must be examined from time to time, and not allowed to become deranged.

**Separators.**

172. Warp frames are generally equipped with separators. These are blades, sometimes made from sheet metal, and sometimes cast. Formerly where traverse of warp frames did not exceed 5 inches, cast separator blades served the purpose. But with the introduction of longer traverse, wider blades were required than could be cast without too much weight; hence stamped blades have become almost universal.

Recently several new designs of blades have been introduced, made from aluminum, die cast, providing a blade that is light, smooth and durable.

Separators are attached to light rods, running lengthwise frame, so placed that one blade stands in the middle of each space, between spindles, and above the ring rail. These rods are attached to lifting rods similar to those for traversing ring rail, but with a smaller traverse. The separator rises and falls with the ring rail, through a shorter distance. The separator is for the purpose of keeping the yarn from adjacent spindles from becoming entangled with one another. The yarn passing through thread guide and traveler, being rapidly twirled around spindle, has a centrifugal tendency, and forms, as shown at a, Fig. 34, what is called a "balloon."

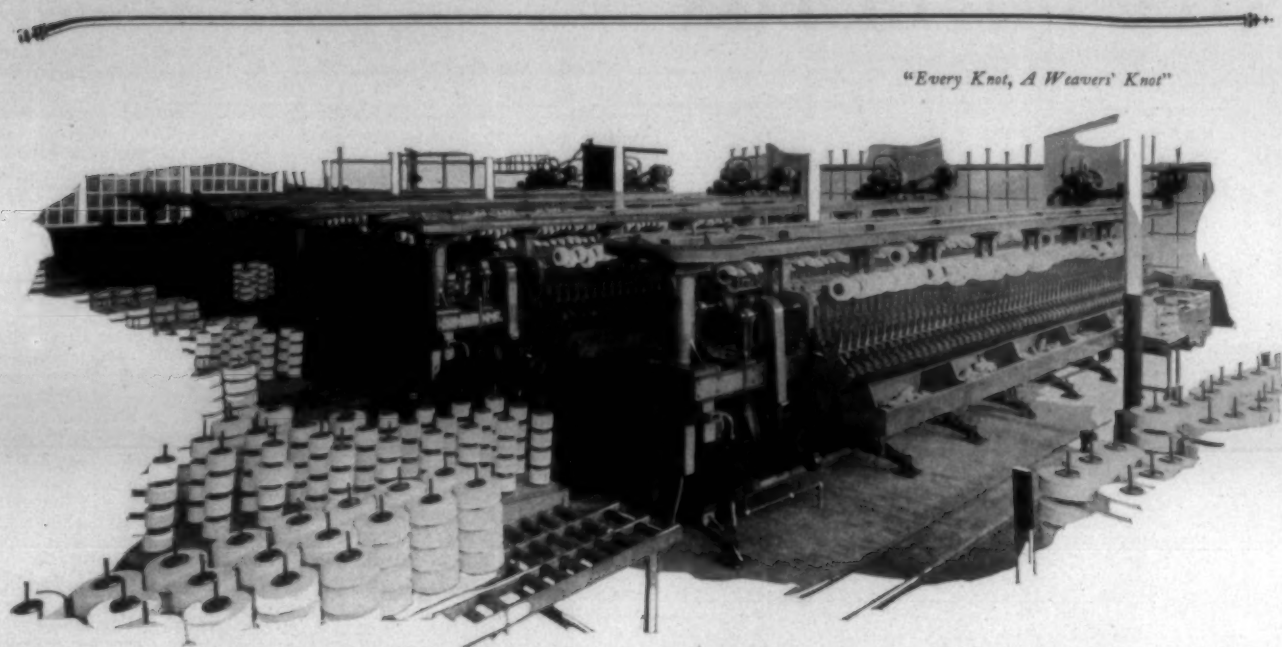
In the case of a warp frame, (where traverse is so much longer than on filling frame), when ring rail is at bottom of traverse, there is a longer stretch of yarn between thread guide and traveler; and hence there is a tendency to balloon. The separator keeps ballooning yarn on one spindle from interfering with another. On filling frames, separators are rarely necessary. If the frames were so constructed that spindles stood far enough from center to center, separators would not be necessary; but in order to economize, frames are generally made with spindles so close together as to need separators, especially on warp frames.

173. The thrashing of yarn against separators necessarily works some injury to the yarn. It would undoubtedly be better for the product if frames were made with sufficient space between spindles ("gauge") to entirely dispense with separators. It is thought by some to be a paying investment to give up floor space for this purpose. An average ring frame, for spinning No. 20 warp yarn would have 208 spindles with  $2\frac{3}{4}$  gauge,  $1\frac{3}{4}$  rings, and 6 inch traverse; and would require separators. The frames would be about 27 ft. long. In order to dispense with separators, the gauge must be about  $3\frac{3}{4}$ , which would make the frame about 32 feet long. There are several varieties of separators on the market, all for accomplishing the same purpose, but differing in details of application and operation.

**Travelers.**

174. The selection of a proper weight traveler bears close relation to ballooning. The action of ring traveler is much





# Lower Operating Costs= Increased Profits

*It is not What Equipment Costs that counts ---  
It is What It Will Earn.*

**T**HE saving of half the labor cost in spooling and warping departments combined with the advantage of a reduction in weave room expense due to decreased loom stops; greater production from the looms for the same reason; a reduction of 75-percent of the inventory of yarn tied up on spools and beams; the saving of one-half the floor space usually required for spooling and warping, result in profits which produce a most satisfactory return on the investment in Automatic Spoolers and High Speed Warpers.

**B V C**  
TRADE MARK

**BARBER-COLMAN COMPANY**  
ROCKFORD, ILLINOIS

BOSTON, MASS.

GREENVILLE, S. C.

# SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations  
Member of Associated Business Papers, Inc.

Published Every Thursday By  
**CLARK PUBLISHING COMPANY**  
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DAVID CLARK	Managing Editor
D. H. HILL, JR.	Associate Editor
JUNIUS M. SMITH	Business Manager

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Advertising rates furnished upon application.  
Address all communications and make all drafts, checks and money orders payable to Clark Publishing Company, Charlotte, N. C.

## Weaving Mill Dividends

**T**HE announcement was made this week that the mills at Spartanburg will pay \$600,000 in dividends on January 1st.

We are listening intently for some such announcement by the coarse yarn mills of North Carolina, but will wait in vain.

Week after week, month after month and year after year, the managers of the coarse yarn mills deliver their product to yarn speculators with seldom any profit at all and seem to have no initiative or make any effort to bring their mills to a more profitable basis of operation.

Last week we saw an old time negro entering an office. He wiped his shoes on the door mat, took off his hat and entering with an air of object humiliation bowed low to everybody.

His attitude reminded us forcibly of the average coarse yarn mill manager selling his product, for it has really reached the point that a yarn mill manager feels that he is guilty of a gross insolence if he suggests a price that shows any margin of profit whatever.

The weaving mills almost without exception are making some profit and the fine combed yarn mills have by co-operation placed their operation upon a profitable basis.

Coarse yarn mills co-operate with nobody except the yarn speculators, if standing with hats off and an air of humility can be called co-operation.

In spite of improved business and lower cotton, coarse yarns are selling on a lower basis than one year ago.

There was formerly a class of mills that made coarse weaving yarns and another class that made coarse hosiery yarns.

Short skirts are here to stay and that means that never again will there be any great demand for coarse hosiery yarns.

That situation has caused the hosiery yarn mills to change to weaving yarns and we are confronted with the fact that there are too many coarse yarn mills.

To make the situation worse, most of the coarse yarn mills have learned to run at night and the very minute any yarn speculators allows them to have an order at even a slight margin of profit, they send for the superintendent and order a night and day run.

If there was a more intelligent class of men, as a whole, operating the coarse yarn mills there might be some hope through co-operation, but we can see little future for the coarse yarn industry.

When coarse yarns go North they are woven into a wide variety of fabrics, most of which could be made in the South.

Some yarn mills with alert managers have already installed looms and a large number of specialty weaving plants have been built, but we have not yet gone far enough to relieve the situation.

Someday the stockholders of the coarse yarn mills are going to note the fact that while they get the same old hard luck stories the weaving mills at Spartanburg pay at least \$600,000 of dividends every six months and then there will be an uprising which will send many of the managers back to the farms where many of them should be now.

The managers of the coarse yarn mills will not support their own association either financially or by reporting stocks and orders.

They take off their hats and bow when they enter a yarn speculators office and say "thank you boss."

## Paying As They Go

**N**ORTH CAROLINA issued bonds and has already built several thousand miles of hard surface roads and is building others at the rate of about \$20,000,000 per year.

Virginia, South Carolina and Georgia boast about being on the "Pay-as-You-Go" system, intending to mean that the roads are paid for by gasoline and automobile taxes and without bonded indebtedness.

"Pay-as-you-go" really mean that the people in Virginia, South Carolina and Georgia pay as they travel because every trip cost them more in gasoline, automobile repairs and depreciation than would be paid if they had roads like North Carolina has already built.

The people in North Carolina pay no property tax for the support of roads, and as their saving in gasoline is more than the gasoline tax they pay and the saving in repairs and depreciation is far greater than the automobile tax, the hard surface roads really cost nothing.

A recent statement from Raleigh, N. C. says:

The total of both gasoline and license taxes for the first five months of the present fiscal year is \$7,642,963.21, more than a million ahead of the collections at the end of November, 1924, when the figures for the total collections of these two tax items were \$6,482,356.24.

This \$7,642,963 for five months means approximate \$18,000,000 for the year, and that amount is large enough to set aside a big sinking fund for the retirement of the road bonds.

North Carolina will have a complete system of hard surface roads within four years and will have retired all of her road bonds long before the "Pay-as-you-go" States of Virginia, South Carolina and Georgia have built half of their system.

As a result of good roads people and industries are flocking to North Carolina in preference to her more backward neighbors.

Realizing the value of good roads and knowing that the cotton mill interests of our sister States can change the system that is keeping them in the mud, we never miss an opportunity of calling attention to the advantages of the North Carolina system.

## Labor Unions and Farm Children

**U**NDER the above title in their last issue, the Farm Journal of Philadelphia, one of the leading farm publications with more than a million subscribers, takes the hide off the American Federation of Labor. Those who have attempted to unite the farmers and labor unionists can find little encouragement in this expression.

The editorial in the Farm Journal was as follows:

"As we understand it, the basic story of the American Federation of Labor is to have its own members work as little as possible, and not to let anybody else work at all.

"The inherent falsity and viciousness of such a doctrine are so plain to most people that Messrs. William Green, Matt Woll, Freeze 'em Lewis and their cohorts will never get anywhere with it, and we need say little about it.

"The Federation does, however, make one application of its principles that is more than usually mischievous; namely, its support of the dead Child Labor Amendment, and its intention of keeping the amendment before the State Legislatures. 'The fight will go on,' said President Green at the recent Federation Convention, 'as long as we live and through the succeeding generations until the children of the nation are saved.'

"To say," he said, 'that if this amendment is adopted it will give Congress the power to come into the home and regulate the lives of people, is vicious, indefensible propaganda.'

"And again, 'It is the opposition of the farmers, who have been deceived by propaganda, that we must meet and overcome.'

"It is unnecessary, perhaps, to analyze this bunk at length, and show who is telling the truth and who is spreading propaganda.

"But we can not refrain from pointing out that Mr. Green's idea of 'saving' our farm children is to hand over control of them, up to 18 years, to an inefficient and extravagant Washington bureau, under absolute control of a Congress that can be scared out of its seven wits, as has been shown, by the bullying of union-labor leaders.

"It is from such a calamity that the good sense of the farmers of the nation has so far preserved us. We shall do what we can to see that Mr. Green and his 'succeeding generations' are permanently unequal to the task of becoming the real bosses of farm children."

## New Child Labor Bill

**A** NEWSPAPER report relative to the opening day of Congress says:

"A new child labor amendment prohibiting children under 16 from working in industry was proposed by Representative Griffin, Democrat, New York."

There will be many such bills introduced but none will pass, for the campaign against the Child Labor Amendment make people realize the motives behind such efforts.

## The Effect of Curtailment

**T**HERE has been much said about the effect of the forced curtailment by reason of shortage of power.

It has been a most unusual kind of curtailment, in that the November cotton consumption of Southern mills was 382,000 bales, as compared to 366,000 in October, and 347,000 in November of last year.

An increase of 36,000 bales in consumption certainly indicates a most peculiar curtailment.

Buyers of goods and yarns have tried hard to hold down prices by saying that the recent activity was the temporary effect of curtailment, but the above figures show that there has been no curtailment.

The greatest effect of the campaign was that it made the politicians realize that it was not a popular issue and very few Congressmen will vote for another Amendment.



FRANK B. KENNEY  
President

CLARENCE R. HOWE  
Vice President

MARSHALL F. CUMMINGS  
Treasurer

# T. C. Entwistle Company

Lowell, Massachusetts, U. S. A.

*Designers and Builders*

## Warping and Beaming Machinery

High Speed Warpers,

Indicating Clocks,

Warper Creels,

Silk (Rayon) Warpers,

Balling Machines,

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Slasher Warpers,

Beaming Machines,

Card Grinders,

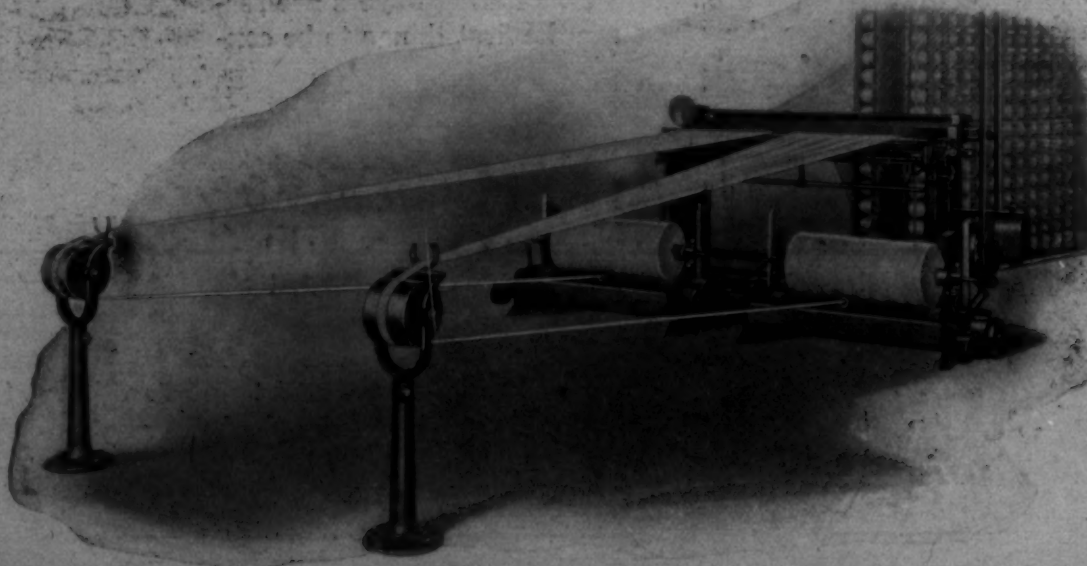
Ball Warpers,

Expansion Combs,

Section Beams,

Automatic Lint Cleaners,

Wood Rolls,



Double Ball Warper

It will pay you well to  
purchase ENTWIS-  
TLE WARPERS.  
You can't lose when  
you buy the Best  
there is at no greater  
cost.

Send for  
OUR COMPLETE  
CATALOG

# MATHIESON Chemicals

## *Quality Is Paramount*

WITH many of the raw materials going into the chemical-consuming industries, market fluctuations are wide and frequent. In such cases the question of price may readily assume in the mind of the buyer an importance out of all proportion to other vital considerations.

This undue emphasis on price may often extend even to those raw materials where market changes are infrequent and small, and where little may be gained by "shopping" for lower quotations. Thus, when the quality and uniformity of the product and the character of the manufacturer should be the prime considerations, price frequently becomes the principal deciding factor. Long-established brand names and records of service may be entirely disregarded for a negligible difference in price.

By rigidly adhering over many years to a uniformly high standard of manufacture, we have built up for our "Eagle Thistle" Brand products an enviable record for quality and uniformity, at the same time establishing a reputation for satisfactory service and equitable business dealings with the consumer. We believe that discriminating buyers are recognizing more than ever before that these are the first things to be considered in selecting a source of supply.

*The* **MATHIESON ALKALI WORKS Inc.**  
250 PARK AVE. NEW YORK CITY  
PHILADELPHIA CHICAGO PROVIDENCE CHARLOTTE

*Caustic Soda - Liquid Chlorine  
Bicarbonate of Soda  
Anhydrous Ammonia*



*Soda Ash - Bleaching Powder  
Modified Virginia Soda  
Aqua Ammonia*

**Deal Direct with the Manufacturer**



# Lestershire Vulcanized Fibre Spools

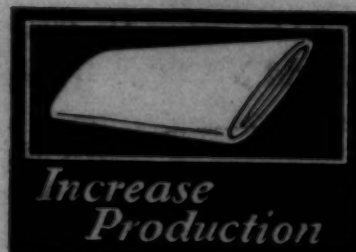
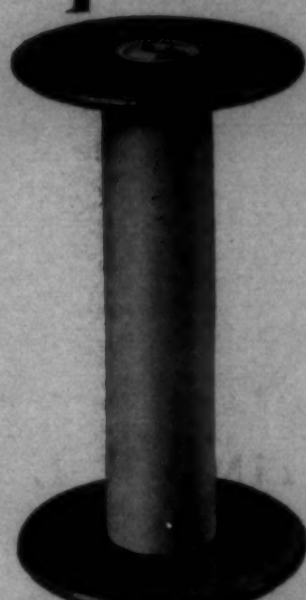
A NEW idea in spools has revolutionized spooling processes. A head of *Vulcanized* fibre has replaced the former soft, easily splintered wooden head. This idea of making the head of a spool resistant to knocks and bumps has increased the life of spools by many years.

Multiplying the life of spools results in tremendous savings. You can figure your own profits for the item of replacement is eliminated as long as your machines last. Yarn losses are stopped, time of employees is

saved, production is increased, and possibility of injury in stopping spools is eliminated. Seconds are reduced to a minimum as spooler knots do not so readily occur from these spools. The new and successful idea in spools is Lestershire *Vulcanized* Fibre Spools.

## Warper Spools for Immediate Delivery

In order to give those of our customers who use standard sized Warper Spools the benefit of immediate deliveries, we endeavor to carry on hand for quick shipment a stock of 4x5, 4x5½, 4x6 and 4x6½ spools.

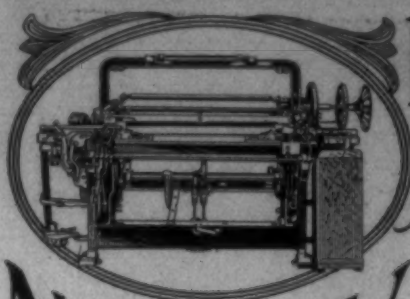


Satisfaction Guaranteed

**LESTERSHIRE SPOOL & MFG. CO.**

Johnson City, N. Y.

Southern Office:  
519 Johnston Building  
Charlotte, N. C.



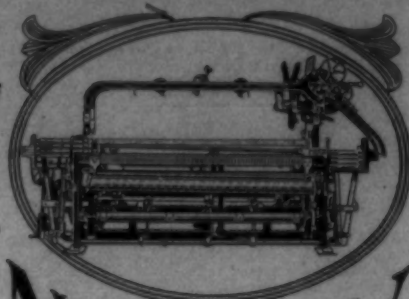
## NORDRAY LOOMS

for Cotton,  
Silk, Rayon,  
Worsted,  
Wool,  
Linen,  
Jute,  
Automatic,  
Plain,  
High Speed,  
Box Type  
Gingham

# HOPEDALE

## MANUFACTURING COMPANY

Milford, Mass. & Greenville, S.C.



## NORDRAY LOOM ATTACHMENTS

Filling Changers  
Feelers  
Warp-Stops  
Drop-Wires  
Temples  
Dobbies  
Positive Head Motions  
Drop Boxes  
Multipliers  
Leno  
Marquissette  
Centre-Forks

It has taken some mills  
ten years to learn that  
we have the **BEST FEELER.**  
It was good all the while; when  
will they realize that we have  
other devices just as superior,  
all making the NORDRAY  
the **ULTIMATE LOOM.**

# Howard Bros. Mfg. Co.

ESTABLISHED 1866

Home Office and Factory, Worcester, Mass.

Southern Branch Factory

167-169 South Forsyth St., Atlanta, Ga.

Southern Branch Office

1126 Healey Bldg., Atlanta, Ga.

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Cylinder and  
Doffer Fillets  
Napper Clothing

Stripper and  
Burnisher Fillets  
Emery Fillets

Top Flats and Lickerins Recovered and  
Promptly Returned

Tempered Steel Twin and Domestic Iron Wire Heddles  
The Best Materials Obtainable Make Up Our Products

Give us a trial on Cylinder and Doffer Fillets. This  
will satisfy you as to the merits of our Card Clothing.



## Personal News

A. F. Garrison has resigned as superintendent of the G. H. Bacon Company, Lenoir City, Tenn.

James Wright has become superintendent of the Rockwood Mills, Rockwood, Tenn.

J. T. Pollard is now superintendent and general manager of the Galax Knitting Company, Galax, Va.

E. M. Ellington has resigned as superintendent of the Galax Knitting Company, Galax, Va.

J. W. Williams is now superintendent of the Graniteville Manufacturing Company, Graniteville, S. C.

W. M. Robbins is now superintendent of the No. 2 mill of the Carolina Textile Corp., Dillon, S. C.

J. A. Graham, has resigned as superintendent of the Shamrock Damask Mills, Landrum, S. C.

M. L. Burton has resigned as superintendent of the Mary Louise Mills, Cowpens, S. C.

A. M. Hamilton is now superintendent of the Wadsworth Mills Spartanburg, S. C.

J. B. Bailey has resigned as superintendent of the Hartwell Mill No. 2, Toccoa, Ga.

A. M. Carter has resigned as overseer spinning at the new Pepperell Mills, Opelika, Ala.

R. L. Pope, of Columbus, Ga., has accepted a position with the Belton Yarn Mills, Belton, Texas.

W. H. Kinkead, of Philadelphia, will be superintendent of the new Somerset Mills to be built at Roxboro, N. C.

John L. Harrison has succeeded J. L. Woodside as manager of the Woodside Cotton Mills, Fountain Inn, S. C.

A. F. Mullins, Jr., has been appointed treasurer of the Columbia Cotton Mills, Columbia, Tenn., succeeding B. D. Miller.

E. A. Rice, of New Jersey, has accepted the position of superintendent of the Insulating Yarn Company, Charlotte, N. C.

T. N. Badger, formerly superintendent of the Dunbar Mills, Greenville, S. C., has accepted a similar position at the Brogon Mills, Anderson, which were recently taken over by the Appleton Mills, of Lowell, Mass. He will assume his new duties January 1.

H. O. Rogers has been promoted from superintendent of the Hartwell Mills No. 1, Hartwell, Ga., to superintendent of the Hartwell Mill No. 2, Toccoa, Ga.

Henry B. Miller, who has been superintendent of the Apanaugh Manufacturing Company, Kosciusko, Miss., has resigned, to take effect January 1, and accepted a similar position as superintendent of the Cherry Cotton Mills, Florence, Ala.

E. P. Coffield has resigned as superintendent of the Brogon Mills, Anderson, S. C., which were recently taken over by the Appleton Mills, Lowell, Mass., and accepted a similar position at the Toxaway Mills, Anderson, S. C.

In honor of Mr. and Mrs. J. Eugene Elliott, Mr. Elliott having recently been appointed assistant treasurer of the Trion Company, headquarters at Trion, Ga., a banquet was held Saturday night, December 5th, at the Y. M. C. A., attended by the various department heads and by the ministers of the Baptist and Methodist churches.

After an excellent dinner, followed by a few introductory remarks of the toastmaster, C. P. Thompson, superintendent of the Trion Company, Mr. Elliott delivered a very beneficial address, in which he presented an interesting series of thoughts on vital matters affecting both the welfare of the employees and the company, a constructive prospectus of the future featuring his remarks.

### Sam R. Zimmerman Resigns as Purchasing Agent.

Sam R. Zimmerman, well known mill purchasing agent of Greenville, who for a number of years past has been doing the buying for a large group of mills in South Carolina, has resigned, to devote his entire time to real estate development. He had been acting as purchasing agent for mills having more than 900,000 spindles. It is not yet known who will succeed Mr. Zimmerman.

### Erlanger to Take Over Nokomis Mills

It is reported on good authority that Erlanger Bros., of New York, have virtually completed arrangements to take over the Nokomis Mills, Lexington, N. C.

Erlanger Bros., manufacturers of B. V. D. underwear, operate the Erlanger Mills, Lexington and control the North Carolina Finishing Company, at Yadkin, near Salisbury, N. C.

### LIBERTY MUTUAL INSURANCE COMPANY

W. R. Pederson, Resident Manager  
Carolina National Bank Building, Spartanburg, S. C.  
Employers' Liability Insurance, Automobile Insurance, Public Liability Insurance  
Cash refunds to policyholders, amounting to nearly \$12,000,000 since organization, have realized savings to them of at least 20% of the standard stock company insurance cost.

## Bobbins and Spools

Particular attention given to  
All Types Of Warp  
Bobbins For Filling Wind  
Samples of such bobbins gladly  
furnished

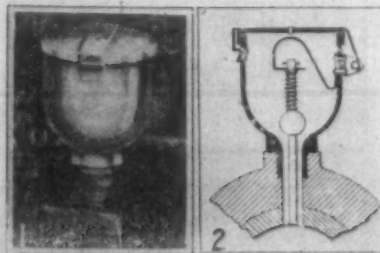
The Dana S. Courtney Co.  
Chicopee, Mass.

A. B. CARTER, Southern Agt, Gastonia, N. C.

Drip,  
Splash!  
Drip  
Goodbye, Profits!

Wasted Oil—Spoiled Goods—Damaged Belts

When an oil-lubricated bearing stops motion, the heat generated from the bearing often causes a certain amount of oil to flood and overflow, resulting in costly damage to good, belts and floors. But where



The  
Knorr  
Lubricator

is used and a non-fluid oil or grease employed, stopped motion means instantaneous cessation of feed and no damaging oil drip.

The simple, patented construction of the Knorr Lubricator insures "the minimum amount of lubricant properly applied."

Write for sample and helpful pamphlet on lubrication.

Malcolm H. Smith Co., Inc.  
50 Congress St. Boston, Mass.



## MILL NEWS ITEMS OF INTEREST

**Fort Mill, S. C.**—The Fort Mill Manufacturing Company, will replace 500 looms with new Draper looms in their No. 2 plant.

**Commerce, Ga.**—The Harmony Grove Mills have purchased 48 sixty-inch Draper looms which will be added to their equipment. A new cloth room is being built and the additional looms will be installed in the old cloth room.

**Dickson, Tenn.**—The Beasley Hardware Company, is interested in establishing a cotton mill here. Local interests are willing to subscribe \$50,000 to ward building the mill, according to D. E. Beasley, who is in charge of organizing the company.

**Boaz, Ala.**—The Ernestine Cotton Mills, a new plant which began the manufacture of twine here some weeks ago, has put on a night shift. It operates 2,000 spindles. E. F. Whitman is president.

**Greenville, S. C.**—It is expected that the Piedmont Plush Mills will be ready to begin operations by the first of March. Installation of equipment will be begun in January, officials stated. Special plush looms for the plant were purchased from Germany.

**Dallas, Texas.**—It is reported that the capacity of the Dallas Textile Mills will be increased by twenty-five per cent. The mill, which is controlled by the C. R. Miller Manufacturing Company, now has 10,000 spindles and 240 looms on drills and twills.

**McKinney, Texas.**—It is reported that the Texas Cotton Mills will be increased by 25 per cent. The mill, which is controlled by the C. R. Miller Manufacturing Company, of Dallas, now operates an equipment of 11,000 spindles and 746 looms on colored goods.

**Roxboro, N. C.**—The stockholders of the new Somerset Mills, Inc., met here this week and elected officers. James H. Craig, of Philadelphia, was elected president; J. A. Long, of Roxboro, vice president; A. C. Harris, of Roxboro, secretary and treasurer, and W. H. Kinkhead, of Philadelphia, superintendent. The mill will be affiliated with the John Watt's Sons Company of Philadelphia, manufacturers of Turkish towels. The company has two other plants, with New York offices at 43 Leard street. The president of the mill is connected with the Watt concern, but will spend considerable time here, particularly until the new plant begins operation. Contracts for the buildings call for a factory building 100x150 feet in dimensions, and nine residences. The mill will begin operations with sixty looms and this number will be increased later.

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**Rock Hill, S. C.**—The Carhartt Overall Company has placed contract with the Bahnson Company of Winston-Salem, N. C., for new humidifying equipment.

**Johnson City, Tenn.**—Contract for the erection of the rayon manufacturing plant to be built here by the American Bemberg Corp., is expected to be let this week at the New York offices of Lockwood Greene & Co., engineers.

**Lexington, N. C.**—Plans for the establishment of a plant to manufacture lace are being considered by R. P. Earnhardt, secretary of the Wabenhah Mills. No definite action has yet been taken, but Mr. Earnhardt is interested in beginning with a small plant to make cluny, torchon and similar goods.

**Columbus, Ga.**—Plans and specifications for the new No. 6 Mill for the Muscogee Manufacturing Company have been authorized by their Board of Directors.

The new mill will be in the nature of an addition to their No. 5 mill and will be in the shape of an L, 193 feet long by 115 feet wide, five stories high, and 108 feet wide by 54 feet long, five stories high.

These buildings are to be of reinforced concrete and steel and brick construction with steel sash. In addition to this building program there will be a complete reorganization of all of the machinery layout of their old plant. The Muscogee Manufacturing Company at present have 50,000 spindles. Robert & Co. are architects and engineers.

**Smithfield, N. C.**—The plant and property of the Ivanhoe Manufacturing Company, now in bankruptcy, will be offered at public sale here on January 16th by the receiver, Kenneth Gant, of Raleigh. In addition to the mill building, the company owns a large tract of land.

This plant contains 12,000 spindles with all the machinery equipment to manufacture cotton hosiery and underwear yarns numbers 16s to 24s single, wound on cones. The machinery is all electrically driven, group drive; it also has, in addition to the motors, boiler capacity to the amount of 500 horse-power, with a cross compound condensing engine 14x28x36. The plant is one story, brick and concrete. Warehouses for storage of cotton all one story, brick with concrete platforms. Waste brick. The mill buildings and warehouses are all equipped with up-to-date sprinkler systems which gives the lowest insurance rates.

**Spartanburg, S. C.**—Expenditures of approximately \$2,000,000 for expansion and improvements have been announced by mills at Anderson.

One million dollars will be expended in doubling the capacity of the Brogan Mills, recently purchased by



the Appleton company, of Lowell, Mass.

Appleton Manufacturing Company will double the local plants capacity gradually. Announcement was made of the purchase of additional machinery for the local plant at a cost of approximately \$50,000. It consists of picker and napping machines, in addition to several hundred Draper looms. The new equipment will occupy space in the plant heretofore vacant.

Riverside and Toxaway Mills, of Anderson, and Riverside Manufacturing Co. of Pendleton announced they will expend approximately \$325,000 to expand their three plants.

When these enlargements, including that of the Appleton Company, have been made, employment will be afforded 800 or more additional operatives.

Additions at Riverside and Toxaway, exclusive of the Pendleton enlargement, will provide employment for approximately 100 additional operatives.

The sum of approximately \$195,000 will be expended at the Toxaway plant. New machinery will cost about \$125,000, and a new dye plant about \$50,000. Construction of fifteen new cottages will cost about \$20,000.

Directors of the Orr Cotton Mills have authorized erection of twenty-five additional houses, the cost of which will be between \$25,000 and \$30,000.

**Kannapolis, N. C.**—Plans are being made by the Cannon Manufacturing company, it was learned here, to erect at an early date a new addition to its plant here, which will add 50,000 spindles to the 130,000 spindles already in operation by this company here. At the same time, it was learned that a power plant, to supply electricity for the entire group of Cannon Mills, was being contemplated.

Although officials were able to give no estimate as to the actual cost of the mill, declaring that their plans were not sufficiently advanced for such an estimation, it is rumored that the approximate value of the new plant will be in the neighborhood of two and a half million dollars, and possibly more. A more conservative figure placed the cost at two million.

Officials stated that it had been

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definitely decided that a new mill would be constructed and that it would have 50,000 spindles; the superintendent had been in conference with the engineers and had given them an idea of the plans; when they have completed their preliminary work, some idea of the actual cost could be given.

The plant is to be built on the Kannapolis-Salisbury highway, just inside of the Cabarrus county line. It will be a short distance north of Mill No. 6. The dimensions of the new structures are as follows: 600 feet long, 100 feet wide and three stories high. It will carry carding and spinning departments.

It is understood that the new mill will have no weaving equipment and that the additional spinning will obviate the necessity of taking yarns from other mills for towel weaving here.

The proposed power plant has been considered for some time, but no definite action has been taken. The entire project is still in embryo form. Experts have visited Kannapolis and have made a survey of the field with a view to making recommendations. They have been figuring on power developments, but have made no report.

It is possible that a steam plant may be erected which will take care of the entire group of mills. If this is not found to be the most economical method of solving the power situation it will not be constructed, however. The entire project rests with the reports which the engineers make.

The new mill will make the seventh in the group here, the other six having been in operation for several years. Mills at Concord and York, S. C., are owned by the Cannon Manufacturing company. The capital stock of the entire chain is given at \$10,000,000.

The population increase here as a result of the construction of the new addition will be considerable, it is pointed out. Over a thousand employees are to be added to the pay roll, which will probably increase the total population by over three or four thousand people. With a population of around 8,000 people at present, the new population will be in the neighborhood of 12,000 after the new building is constructed.

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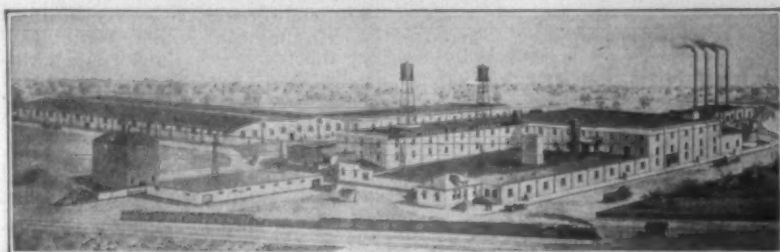
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## A Quickened Pace

(Charlotte Observer.)

After a long period of hard sledding, the cotton mill industry of the States is striking a faster pace. It is true that during the drought many mills were forced to curtail, because of shortage of power, and that the public understood this enforced shortage was to be viewed as a fortunate circumstance in avoidance of enforced curtailment of working hours, a curtailment that was welcomed on account of the dullness in the market, but all the same the shut-down thus enforced caused many mills to lose money, for every mill that was operating on a satisfactory basis suffered curtailment of profits in proportion to the time lost. Thus, poor markets for some mills and curtailed production for others established conditions over which the mill men had cause to worry. But evidences are not lacking that the industry has now survived the worst and is picking up its licks. A number of mills have added new spindles to make up for lost time and other mills are planning additional plants to take advantage of the opportunities that are plainly in sight. The best evidence of returning prosperity in the textile centers is afforded in the plans made public by the Cannon Mills division at Kannapolis. The new plant to be constructed and equipped at that place is of a character that would have constituted in itself a mill settlement of some consequence in days gone by, for it will operate 50,000 spindles and give employment to 1,000 hands. That means a new mill settlement of about 300 families, and more schools and churches, gymnasiums and recreation grounds and buildings. As much as \$2,000,000 will be expended on the new plant. Kannapolis is already famed as the largest unincorporated town in the Union, and the location of the largest towel factory in the world. Its fame in both particulars is to be increased in proportion to the magnitude of the new addition to its industries and population.

But Kannapolis is not the only point of increased development in the textile district of the State. There is Cramerton, shortly to be transformed into the village of lakes by reason of the back-water from the Catawba dam, which has been already landscaped and laid off into new industrial tracts, on which four new mills will be located. The Cramerton scheme is to develop that center into one of the finest cotton mill settlements in the entire country.

While these are the major enterprises so far announced, there are evidences in all parts of the State of revival of the cotton mill industry. One cannot travel any highway in the textile sections without noting here and there additions to old mills almost equal the original capacity of the former plant. In some towns that had no mill, the hope is realized as new mills are seen going up. There is a fair possibility that with the additions made to the spindleage of the State during the present and the coming year, North Carolina will take the lead over all States, not only in the

South, but in New England, in production of cotton goods—but not entirely of the class that had been standard up to recent days. Much of the new construction and equipment will be devoted to manufacture of the finer class of goods, in production of which the Southern mill managements have scored a signal success.

## Celanese Used for Raincoat Fabrics

Synthetic fiber has come into competition with rubber when the American Cellulose & Chemical Manufacturing Co., Ltd., demonstrated the practicability of combining cotton with celanese to produce raincoat material.

At the company's New York offices a sample of the new material, produced by an English cotton goods manufacturer was shown. It was said to be completely waterproof, although no rubber had been used.

Carrying the high luster of celanese, the material had a cotton back and a celanese face, fused to the backing. It was dyed henna.

The material is fabricated by weaving celanese and cotton together, the cotton forming the backing. The fabric is then drawn tightly over a metal surface, raised to a temperature sufficiently high to reduce the celanese to a semi-liquid state and fuse it with the cotton backing. The cotton is thereby completely filled with celanese facing, which is waterproof.

Considerable advantage over rubberization is claimed for the new waterproof material. The principal one is that it will not cause excessive perspiration.

## Will Meet in Atlanta.

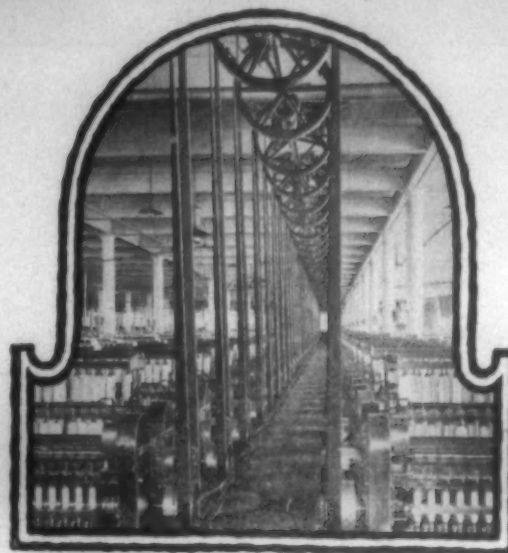
Atlanta was selected as the 1926 meeting place of the American Cotton Manufacturers Association at a meeting of the board of governors held in Greenville. The time of the convention was not determined but in all probability the body will convene some time in May.

A number of Southern cities extended invitations for the association to meet there next year, including Greenville, but Atlanta was decided upon after a brief session.

Those attending the meeting were: W. J. Vereen, of Atlanta; W. D. Adams, of Charlotte; T. H. Rennie, of Alabama; Captain Ellison A. Smyth, S. W. Cramer, C. E. Hutchinson, Arthur Dixon of North Carolina; and J. E. Evans, J. P. Gossett and W. E. Beattie of South Carolina.

## Good Demand Reported for Austrian Yarns.

The demand for Austrian cotton yarns was considerably better during October of this year than during the corresponding month of 1924, according to a report from Assistant Commercial Attache E. Baldwin, Vienna. Activity in the Austrian cotton-spinning industry has more than doubled during the year, primarily for export of yarn to Germany.



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Three hundred thousand packer hides of finest quality are processed in The Graton & Knight Belt Leather Tanneries each year. This stock, plus controlled, standardized production, makes our prices, quality for quality, 5 to 10 per cent lower than the field.

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is carefully watching these spinning frames. In his hand, he holds a brush.

\* \* \* \*

He is not one man, but hundreds, for in every textile mill many men are similarly engaged.

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Over 90% of all Southern textile mills not only use, but *insist upon* Perkins Practical Comber Dusters. We supply these mills with brushes for all of their textile needs.

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The reason is, simply enough, that our sole business is the making of brushes; our sole purpose is to produce better brushes than any other manufacturer. The fact that we supply 92% of all brushes bought by Southern textile mills proves that our policies have won wide recognition.

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If we haven't a brush to fill your requirements we will design one for you.

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And back of every brush is our A. B. C. guarantee that the brush is perfect and will give absolute satisfaction.

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## Cotton Mill Processes and Calculations

(Continued from Page 21)

like that of flyer on roving frames. The roving flyer is driven at a constant speed by spindle, while bobbin is driven by a positive mechanism at a faster speed, in order to wind up roving. In the spinning frame, the spindle and bobbin revolve at a constant speed together. The yarn, passing through traveler on the way to the bobbin, is dragged around with the bobbin, but does not go quite so fast. This sagging back is equivalent to a bobbin lead, and allows yarn to wind on bobbin. At the same time, the going around of traveler causes twist to be put into the yarn. The drag of bobbin on traveler tends to revolve it as fast as the bobbin itself, but the friction of traveler, and of yarn through the air, are all features tending to retard it. It is always possible to obtain the winding effect, no matter what the weight of traveler, so long as the yarn will hold together. If the traveler be very light, it will be willingly led, so as to speak, and as there will not be much strain on the yarn in leading to traveler, it will balloon more. If a traveler be very heavy, it will be stubborn to lead, and the yarn will be much stretched in leading it. Carried to excess in this direction, the yarn will finally break. Hence the limit for lightness of traveler is the limit to which ballooning can be allowed; and the limit for heaviness is the limit to which stretch in yarn may be allowed. Since it is desirable to stretch yarn as little as possible, the ideal condition is to work the lightest traveler that will not damage yarn by beating too hard against separator.

When double roving is being used, it is important to have the traveler heavy enough to break down the yarn in case one end of roving fails. When one of the two ends of roving breaks or runs out, the resulting yarn, (called "single,") spun from the single roving, is only half the strength of the normal yarn; and, if the traveler is of proper weight, it will break down this "single," and thus prevent it being wound on the bobbin with the other yarn.

175. There has been no fixed rule discovered for determining the size traveler which is proper for a certain number of yarn. It has heretofore been determined entirely by experiment under the particular conditions in question. It varies with size of yarn, size of ring, length of traverse, speed of spindle, twist in yarn, whether warp or filling wind, whether single or double roving, and whether there are separators or not, also with atmosphere, and with quality of raw material. But, in order to convey an approximate idea of the size traveler to use under average conditions for certain numbers of yarn, the size traveler is inserted in the ring spinning table in Appendix.

Travelers are numbered according to an arbitrary standard. The weight of different numbers of travelers are given in the ring traveler table in Appendix.

Some brands of travelers have square points and some have round points; some have flatter curves than other; some are thicker in proportion to width than others. Superintendents differ in opinion as to whether one or another kind is better. They also differ in regard to what is the proper weight under the same conditions. The whole subject seems to lack scientific definiteness, and has not yet been sufficiently mastered to warrant the publication of any hard and fast rule that will cover all conditions. The only plan at present is to experiment in each case within the broad principles laid down, and select the particular kind and weight of traveler which gives the best average results under conditions for the case in hand.



## Size of Ring.

176. The best size of ring adapted to certain yarns, is also a matter of opinion and judgement, but the approximate and average ring sizes are inserted in the ring spinning table.

On account of saving time in doffing, it would seem technically best to spin bobbin of very large size and long traverse. This would mean large rings; but experience has shown that there is a well defined maximum size of ring for each number of yarn. With large rings the pull of traveler on the yarn varies greatly between empty bobbins and full bobbins. Referring to Fig. 39, it will be seen that the pull of yarn from bobbin through traveler, when bobbin is empty, meets a greater resistance than when bobbin is full. In the first instance the pull is more nearly a direct strain on the ring, while in the latter the pull is more in the direction of revolution of traveler; so that traveler, instead of being strained against ring, is mostly impelled in the direction of revolution. But when using smaller rings, the difference in the angle of pull between empty and full bobbins is very much less, and hence there is less unevenness in the stretch of yarn, and also in the twist. There is a limit to the smallness of rings, on account of making small bobbins and entailing much loss of time from frequent doffing. There is a limit to largeness of rings on account of unequal strains and twists in yarns, even to the extent of breaking the yarn, and making it impossible to spin. The maximum limit varies with kind of stock, and the amount of twist imparted. Thus it is possible to spin yarn with standard warp twist on a ring that would not spin yarn of same count with filling twist for the reason that yarn with warp twist is harder and stronger than with filling twist.

177. It so happens that a large ring is not necessary or desirable in spinning filling, for the reason that the filling bobbin when spun, is ready without further manipulation to go to the shuttle for weaving. The size of bobbin which a shuttle will receive is always a smaller limit than the ring. That is, it is always possible to spin good filling of any number in a ring as large as the largest bobbin which a shuttle (designed for weaving that number of yarn) will receive. For the average sheetings woven in the South (from 3 to 5 yds. per pound) the shuttles are made to carry  $1\frac{1}{4}$  inch bobbin, so that filling rings are very generally made  $1\frac{1}{4}$  to  $1\frac{3}{8}$  which is a good size for the counts spun, say 20 to 40.

The final determination of size of ring is proper under any given conditions, is a compromise between small size with small production and even yarn on the one side; and large ring, large production and more or less uneven yarn on the other.

The length of traverse\* for filling wind is always small, from  $1\frac{1}{4}$  to 2 inches, and the range has no important influence on character of yarn spun. But for warp wind, the determination of the proper amount for a given amount for a given set of conditions, is another compromise between short traverse, with small production, and even yarn on the one side—and long traverse, greater production, and more uneven yarn on the other. The longer the traverse the greater is the variation in length of yarn between front roll and traveler. If a traverse is 7 inches there is 7 inches more of yarn being spun with rail at bottom than with rail at top; whereas if traverse is 5 inches, the difference is 2 inches less. This constantly varying length introduces constantly varying tension through traveler, thus making minute variations in weight. There are also variations in twist from the same cause.

\*The word "traverse" is somewhat loosely used in connection with filling wind. As used in the text, it means the small amount that ring rail rises and falls, (say  $1\frac{1}{4}$  to 2 inches) at each reversal. But most machine builders call the "traverse" of a filling frame the total range of motion of ring rail from time bobbin starts until it is full. This is 6 to 7 inches.

(Continued next Week)



FIG. 20.  
Oblong Basket

We thank you for another Banner Year in Lane Basket sales.

We appreciate even more, however, the closer ties of friendship which the year has witnessed.

To you and yours we extend the Season's Greetings and best wishes for a Happy and Prosperous New Year.

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**Than ever before**

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**WRITE FOR SAMPLES**



**WHY COTTON MILLS HAVE BEEN MOVING SOUTH**

(Continued from Page 14)

those in the South, and many of the mills located in large cities own corporation houses, as they are called. . . . Practically one-third of the mills in Massachusetts own some tenements, and probably two-thirds of those outside Massachusetts. Approximately 10 per cent of the cotton-mill operatives of Massachusetts live in mill houses, while the proportion for all of New England may be as high as one-fourth." (I am quoting from a personal letter from a man who is as good an authority on his subject as I know of). "The figures which I have given you are really only rough estimates, but they are not without foundation. Since there is a large amount of guesswork involved I trust you will refrain from quoting the source of these figures in any of your articles."

I think pretty nearly every mill in the South, city or country, has a village of some sort. When I was in New England I did not make a special study of labor conditions, but to judge from the views I got of the villages I passed or passed through, none of them was comparable with the average mill village of the South. However, I did not see many country mills. While as high, possibly, as a fourth of all mill operatives in New England live in mill-owned houses, I think fully 75 per cent or 80 per cent of all Southern mill operatives live in mill villages. The attitude of mill management therefore and of mill operatives in the South toward individual ownership is an important consideration.

**Helps to Make Good Citizens.**

As a general proposition, there are few if any influences more potent for good citizenship, or more efficacious in keeping socialistic notions at a distance, or, in some situations, in reducing labor turnover, than ownership of private property, and it would seem highly desirable for the mills of the South to encourage home ownership, and to encourage it as much from a public-spirited motive as from a selfish one. It set out on my investigating believing they ought to do more than I knew they were doing, but I came home convinced that, however desirable it may be no feasible plan for its has yet been devised or is likely to be devised so long as present conditions prevail. I hope I am mistaken.

In the first place, a class of people who lived as farmers without ever having been sufficiently impelled by a desire for private property to have acquired title to a little patch of land will not readily take to a plan for buying homes. Home buying requires that self-sacrifice that goes with deferred enjoyment for the sake of future profit, and does not appeal to them. Some of them would like to own homes, but the desire does not seem very strong. Second, any natural desire in this direction would be throttled in most places by the fact that the mills rent their houses for about a third or a fourth of the rate the people would have to pay outside the villages, do not raise the rental when they raise wages, generally do not charge for electricity or water, and take care of all necessary repairs. Those people who would otherwise want to own homes and would make any reasonable sacrifice to own them are forced to realize it would cost entirely too much. Taxes, water and electricity and repairs would come to more than the total rental they pay to the mills. In the third place, outside of the largest mill centers where there are several mills, in any of which a mill hand may work, a family that owns its home is like a bird in a cage, forced to eat what its owner gives it, while a family that rents is like a bird in a tree, free to fly to pleasanter climes any time the conditions around the home tree become disagreeable. This is the case from the mill help's point of view.

Then there is the mill management's point of view. Why not charge a reasonable commercial rental for their houses, put the difference into the pay envelope as cash, and let the operative rent where he will? Or why not help him buy his home, either in the village or outside?

**Specimen of Welfare Work.**

The answer to the first question may be best illustrated by the reply E. S. Dunn, superintendent of the big Avondale mills at Sylacauga, gave me when I asked him the same question in regard to all of the welfare and amusement facilities he provides for his employees. He referred to the ten-acre lake we had just visited. "We built that dam at a cost of \$1500," he said. "We have 1500 employees. We could have added a dollar to the pay envelope of each of them for one week. Then each would have had that much more money and that much more independence in spending it. Instead, we spent it for them. Do you think if we had given them the money they would ever have built that dam?" He might have asked also, "Now that they have had the pleasures of fishing and swimming in the pond, do you think they would sell the right of it for \$1 apiece?"

In a matter of a higher rental and a higher wage, the people can live considerably better than they could on that arrangement because the mill is able to provide better houses, and maintain them in better condition for the same total expenditure than a large quantities and can protect itself against extortionate prices of local dealers. Further, if the majority of the people rent from the outside agents they are at their mercy in the rental rate every time they receive a raise in their wages. Without any question they live better because of the mill's paternalistic arrangement.

**Good Homes Appreciated.**

Incidentally, it may be remarked that many country mills provide large and comfortable homes for their superintendents, or agents, sometimes at nominal cost, sometimes at no cost. I never knew a superintendent who regarded a home so provided as anything but a blessing, and I do not believe

(Continued on Page 35)

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*Section of spooling department, where rayon is wound from skeins to spools for transferring to other forms. From this point onward the manufacture of this new fiber resembles that of other well-known textiles except that special machinery is required.*

## Rayon the New Prodigy of the Textile World

(Continued from Page 12)

Ireland as a result of their efforts to turn out fabrics of flax and rayon combined. Here as with cotton, we have the wedding of two vegetable fibers. It is confidently anticipated that flax and rayon unions will come into great favor with the garment trades as well as for household and decorative uses. There has been made this year a cloth which goes by the name of "celaline" reported as marvelously beautiful, with a fascinating "lively" lustre, which represents a new note of distinctiveness in which twin color effects are produced by a newly invented series of dyes. An idea of the scope for the use of rayon in mixtures may be obtained from the world production of the leading fibers. These in 1923

were, in millions of pounds: Cotton 9,000, wool 2,600, rayon 97 and silk 87.

In lining materials the slipperiness of rayon is a virtue. A velvet with a cotton back and a rayon pile which falls at an angle giving the fabric an unusual sheen or lustre is another novelty. Coarse numbers of rayon yarns are enriching tapestries. A high degree of artistic achievement is presented in rayon and cotton bedspreads. It is found to be peculiarly suited to the manufacture of furniture coverings, even when used by itself, being remarkably durable.

It has been said by silk men that only those who would wear a "flash" diamond buy artificial silk goods, ignoring the fact that there will always be a host of people who would like to wear a silk shirt but cannot afford it. Rayon and its moderate



*A design for a figured silk tapestry hanging made largely from rayon. This artificial fiber has many uses in the field of interior decoration.*



price has an irresistible appeal to such folk.

Rayon is used for gas mantles, while artificial flowers and foliage are cut and embossed from sheets of it. It appears in a vast number of finished articles among which are

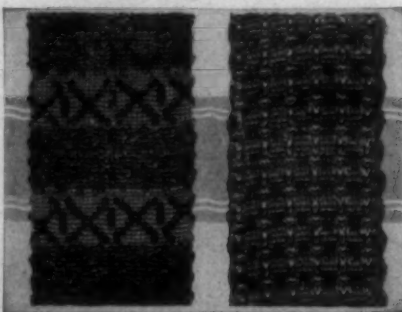


Corner of a bedspread made from rayon and cotton, the use of the former imparting luster and vividness to the decorative design. It is with cotton that rayon goes best for appearance and all around lasting satisfaction. The weight of experienced opinion leans to combinations of cotton and rayon as the basis for ideal fabrics of beauty and durability at popular prices.

handkerchiefs, camisoles, jabots, shawls, fancy aprons, caps, wraps, coats, bedjackets, scarfs and mufflers, knit dress goods—known as tricolette, krep knit, trocislain, and other trade names—are being made entirely of artificial silk without the mixture of other fibers. In sports suits the woven material appears to be displacing the knitted garment to some extent. The insulating properties of rayon are such that, although it is now used in considerable volume, it will not be long before the electrical trade will be using enormous quantities. Artificial horsehair is also made from the same basic materials as those from which rayon is produced. During the last few months rayon has appeared in the waterproof garment field. Mixtures of cotton and rayon are being made up into attractive apparel of which it is said the one fault lies in the fact that they are too durable to wear out. Predictions of a greatly enlarged use are by no means confined to makers of the new fiber. Those who weave and knit it into wearable forms and who put it to other uses are, if anything more enthusiastic than the producers. The latest report is that British scientists have discovered that rayon fabrics filter sunlight and pass through the kind of rays that

are especially beneficial to the human body.

Much controversy is raging over the intrinsic merits of rayon and its limitations. Prices, hygienic properties, comfort and reliability in wearing, behavior in laundrying and obstacles encountered in factory manipulation have all become matters of lively debate. With the last of these we need not concern ourselves here. The broad statement sometimes made that "rayon won't wash and won't wear" is as far away from the facts as are some of the peans of praise sung of it. The United Underwear League of America objects to its use in underwear because "perspiration destroys the integrity of the fabric." Another competent research observer cites the case of a jumper which "after being washed was fully twice as long as it was originally." Another fault is that it behaves like cotton and readily creases and, unlike silk or wool, does not recover unless subjected to pressing, etc. Attempts to eliminate this objection have not yet been successful. Overcoming inherent in elasticity in any material is a difficult problem. As to comparative wearing qualities, everything



In knitted goods rayon is widely used. It is here shown in two attractive tie designs.

yet known about rayon points to the superiority of the four natural fibers. Something in the way of improvement, as new and as revolutionary as rayon itself was in its beginning, will have to be developed before it can approach any of the four in that respect. Rayon lacks true stability compared with other fibers. It is easily stretched beyond the recovery point, thus presenting many pit-falls to the heavy-handed user. Rayon readily absorbs moisture which is very significant because the more moist it becomes the weaker it gets. It also resists friction. The individual fibers, size for size, have only about one-half the strength of cotton and one-quarter the strength of silk. Being hopelessly weak when wet is obviously a more serious matter to the wearer of rayon clothing than to the manufacturer.

In arguing this debatable point, a

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# STARCH

leading authority on the serviceability of rayon claims that is wearing qualities are equal to those of any other material of an equal grade, when used in the same manner. "A good grade of rayon," it is his contention, "will outlast a silk garment when given the identical wear and care. Likewise, a rayon garment will withstand the wear given the average cotton garment of good grade.

"Of course, the purchaser of a rayon garment should know how to care for it, in order to reap the most in service and satisfaction. It is well known that wool must be laundered in certain ways and with certain soaps to avoid shrinkage. It also is a recognized fact that hot water and a hot iron are enemies of silk. The characteristics and peculiarities of rayon, however, are not so well understood. While no water is too hot or too cold for rayon, and although it will withstand strong soaps better than either silk or wool,



A jumper made of ivory artificial silk (rayon) lace and gold thread.

it must not be handled roughly while wet. As soon as it is dry, of course it regains its full original strength.

"As nearly all rayon is fast dyed, there is little danger of harming the colors in washing, but a knitted rayon garment should never be hung up to dry. All fabrics that combine rayon with other fibers should be given the treatment ordinarily accorded to the other fiber, as rayon lends itself to the requirements of silk, wool or cotton. Any rayon garment may be dry cleaned with gasoline or other compounds used for silks or other fine fabrics, and if treated with the same care as silk, it will give entire satisfaction."

In sum: the present state of experience indicates that rayon is really only suitable for use in luxury goods or for the decoration of staple fabrics composed of other fibers. It is an ornament and, as Samuel Coultald observes, "should fashion suddenly decide to abolish the jumper and bring skirts down to the ground, artificial silk makers would have some awkward moments before they could turn round."

In hygienic qualities wool leads the field and rayon comes last because it is neither warm nor comfortable to wear. In this respect it cannot compete with the other fib-

ers. This brief article has sought to show the chief advantages and limitations of rayon from the consumer's point of view. What the future holds for the youthful prodigy no one can accurately predict, although Viscount Rothmere, who is interested in the industry in England and also the owner of a chain of important newspapers, has been bold enough to prophesy that "at no distant date half of the clothing of the world will be made wholly or in part of rayon."

### Urges Modern Machinery to Reduce Mill Costs

(Continued from Page 7)

far as possible you should use automatic looms. He may tell you that your work will run better with proper humidity, or that a coat of paint will improve the morale and frame of mind of your workers. I believe there are a thousand ways in which the machinery man and engineer can be of benefit, if the mill man will only cooperate and show as much interest in his mill as he does in going to New York to try and sell goods.

"If your depreciation account is not available, borrow the money and start putting your mill in order, and, for Heaven's sake, keep the good work up year after year. Money spent regularly will more than pay for itself.

"It is time we all got right back onto the job of looking after details as carefully as we used to 20 years ago, but we must further remember that changes are coming fast and that we must keep up with the changes if we expect to continue in business. We must be brought to see the necessity in the mill business of having not only a depreciation but an obsolescence account. The depreciation account will keep the mill in order and in proper operation, the obsolescence account will replace the equipment when new machinery is needed."

#### The New England Problem.

Discussing the New England problem and the drift of industries West and South, Mr. Beede said:

"Are we really the effete people that we are supposed to be? Is there then no help for us? My answer is 'Yes.' There is one way only to do it. Get back into the harness. Know the business from A to Z. Whatever we do, let us do it better than those who have left us and gone westward. Let us put our houses in order and take a new lease of life. It can be done. I know that New England people can still rise to the occasion. If our properties are old and antiquated, it is almost useless to put them into shape, but there are enough good properties which can be operated successfully if we will only give our best efforts to buildings up and reviving our business, by doing things a little better than the other fellow can possibly do. Even in dull times there is always a market for the best. The second quality man is forgotten for the time being. I am not saying mere words, because, if I felt at liberty, I could name quite a few very successful mills operated on the policy of keeping them up to date and producing only the best."



## WHY COTTON MILLS HAVE BEEN MOVING SOUTH

(Continued from Page 31)

there is or can reasonably be expected to be, any of that chafing against mill-owned houses that some New England mill executives attribute to the "paternalized-to-death" Southern mill help. I think if I were working for a salary and a good house, better than I could afford if I were paying rent, were thrown in, I would welcome it.

Roughly one-third of all Southern mill capital is invested in mill villages, and mill executives would like mighty well to unearth that capital and put it to work in the shape of mill buildings and machinery. But there are weighty reasons from the mill's point of view why individual home ownership is not desirable. To start with, most Southern mills were built, or are being built, in small towns or in the country where adequate housing facilities do not exist until the mill provides them. Whatever developments may take place thereafter, it is still true that as long as the mill owns its houses and rents them cheaply it has absolute control over the class of people who may live in the village. This is about the only way so far found to keep the village free of undesirables. With all the education in civics and citizenship that is being given the rising generation in many mill villages, the day may come when the people of the villages can take care of this matter themselves; but that day has not dawned.

A good many years ago the Judson mill at Greenville tried selling building lots to its employees and helping to finance the construction of homes. Some of the people took advantage of the offer, but no sooner did they finish paying for the houses and secure clear titles than they resold at considerable profits or else rented them to people not employed in the mill for from \$20 to \$30 not including water and electricity, and moved into the mill village where they could rent for \$5 per month with water and electricity and all repairs thrown in. Naturally the mill discontinued the practice.

I found several other mills that have made a practice of helping in one way or another to finance individual home building or home buying for responsible families where the initiative came from the family, but these instances are naturally rare, and on the whole they have not been found successful. Consequently the mills felt it would be futile to attempt to push plans of home-ownership, even if it seemed desirable from their point of view.

Ardent advocate that I am of farm or home ownership generally, I do not see how, as things are now in the South, the Southern mill help can afford to own their homes or Southern mills afford to help them to do so.

### Mossberg Establishes Two New Offices

Following close on the heels of the announcement of the opening of their office in Greenville, S. C., comes the news that Mossberg Pressed Steel Corporation of Attleboro, Mass., has established a new office in the Grand Central Terminal, room 2041, with R. D. Smith in charge. Mr. Smith has had an active and successful career in the developing of mechanical devices for the improvement of factory practice, and is well fitted to help solve problems where Mossberg Pressed Steel products fit in. It has always been the policy of the Mossberg Pressed Steel Corp. to go a step beyond the mere scale of a standard "line" of goods. Mossberg men are expected to "engineer" their customers' difficulties, and Mr. Smith is eminently well fitted for this work.

At the same time news comes of the opening of the opening in Dallas, Texas by the Mossberg Pressed Steel Corp. This office is at 101 Slaughter Building and is in charge of Russell A. Singleton.

### Southern Spinners' Bulletin

The crop figures of the Government Report of December 8th were slightly in excess of the general estimate and have had a depressing effect on trading. Eastern market reports show a slight recession in yarn prices although spinners' prices on the whole remain firm.

Buyers seem confident of being

able to secure their supplies at satisfactory figures when desired and show no interest in placing orders at the present time. The approach of the holidays and inventory taking is responsible in a measure for the present slack trading.

Spinners are reported to have orders to last them until well into the next year and are apparently not seeking business at the present level of prices. It is hoped that now the size of the crop is more definitely determined that prices will stabilize and business become normal.

Despite the apparent size of the crop, there is a marked scarcity of both grades and staples and clean white cotton is bringing a material premium over market quotations.

### Bradford Conditionings Decline During 10 Month Period.

During the month of October 8, 362,000 pounds of textiles passed through the Bradford condition house for tests, of which wool tops comprised 5,216,000 pounds—an increase of approximately 600,000 pounds compared with the like period of last year, states Vice Consul G. L. Fleming, Bradford. Although the October figure for all textiles exceeded that for the corresponding month of 1924, by more than 1,000,000 pounds, the total quantity handled from January 1 to October 31, amounted to 54,191,000 pounds in 1925, a decrease of 16,416,000 pounds compared with the figure for the first 10 months of last year. Declines were registered in tops, raw wool and noils.

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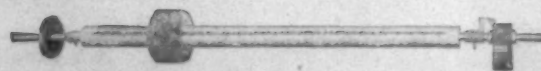
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## Cotton Goods

New York.—The week was not a very active one in the cotton goods markets, although buyers and sellers were nearer a trading basis before the close. A few rather large orders for print cloths were reported on Friday and Saturday, but business through the middle of the week was mainly of a filling-in character. Slightly lower prices ruled on print cloths and sheetings on Saturday. Buyers used the large cotton forecast as a basis for expecting lower prices on cotton goods generally and were unwilling to consider quotations that did not reflect the larger yield.

Prices on bleached goods showed a reduction of a half of a cent a yard and the trade was inclined to anticipate further reductions. Printed goods and rayon mixtures of many types proved the most popular sellers in the wash goods lines. Shirtings for future delivery sold steadily and rayon and cotton broadcloths sold well.

Reports from the retail trade show that holiday buying has been exceedingly active and should prove a very important factor in the market situation.

Print cloths were more active than sheetings and the lower prices were principally on this goods. A number of quotations on sheetings showed no change, but the demand for sheetings was not strong enough to show how well prices would hold up.

Broadcloths were generally rather quiet throughout the week and quoted prices were nominally unchanged. Mills were asking 13½ cents for 100x60 and 13¼ for 100x64. On combed 128x68, prices were around 19 cents for the best known lines, with others available at 18½ cents.

There have been no new developments in the tire fabric market since manufacturers placed large orders for the first half of the year. Mills are well sold ahead and are in no hurry to secure new business, as most plants are booked through the first three months of 1926.

In cotton duck, price reductions were noted on hose and belting numbers. On most lines of duck however, enough miscellaneous business has been placed to keep the mills busy for some time to come.

For 37-inch, 3.95 yard drills, 9½ cents net was reported; 12¼ to one-half, net, for 37-inch, 3.00 yard; 13 net for 37-inch, 2.75 yard; 15 net quoted for 37-inch, 2.35 yard; 8 net quoted for 34-inch, 4.75 yard, 1¼ net quoted for 30-inch, 3.25 yard.

In the Fall River print cloth market only moderate sales were reported for the week. Buyers and sellers

were both inclined to await further developments. The Government cotton report did not stimulate demand. Total sales for the week were estimated at 50,000 pieces.

There were moderate sales of 36-inch low count, with a light demand for twills and sateens. Wide and narrow print cloths were very quiet. A number of buyers sought to place orders on concessions basis, but most mills were very firm in their asking prices, which continued on about the same basis as during the previous week.

Cotton goods prices in this market were quoted as follows:

Print cloths, 28-in., 64x64s	6%
Print cloths, 28-in., 64x60s	6½
Print cloths, 27-in., 64x60s	6¼
Gray g'ds, 38½-in., 64x64s	9%
Gray goods, 39-in., 68x72..s	10¼
Gray goods, 39-in., 80x80..	12¼
Brown sheetings, 3-yard...	12%
Brown sheetings, 4-yard...	10%
Brown sheetings, stand...	13%
Ticking, 8-ounce .....	24
Denims .....	19
Staple gingham, 27-in....	11½
Kid finished cambrics ....	9½a10½
Dress gingham .....	13½a17½
Standard prints .....	9%

#### Indian Imports of Cotton Goods Decline Slightly.

Indian imports of cotton goods during October amounted to 116,180,000 yards, a slight decline from September figure of 116,761,000, according to cable from Assistant Trade Commissioner Renshaw, Bombay. The October total comprised 50,940,000 yards of grey goods, 30,521,000 of bleached, and 34,719,000 of colored. The United Kingdom supplied 78 per cent of the grey, 95 per cent of the bleached, and 68.3 per cent of the grey, 95 per cent of the bleached, and 68.3 per cent of the colored cotton cloth imported during October, while Japan furnished 21.8 per cent of the grey and 20 per cent of the colored, and Italy and Switzerland were credited with 5 per cent and 4 per cent, respectively, of the colored goods.

#### Textile Imports into Irish Free State Smaller.

Imports of textiles into the Irish Free State during the first half of 1925 were valued at £4,787,936, or approximately £315,000 less than in the corresponding period of 1924, advises Consul H. M. Collins, Dublin. Receipts of cotton fabrics declined from a value of £1,048,185 for the first six months of 1924 to £910,833 for the like period of 1925, while the value of clothing imports decreased from £2,638,275 to £2,476,764.

Southeastern Selling Agency

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# The Yarn Market

Philadelphia, Pa.—There was little change in the cotton yarn market during the week. Spinners were generally inclined to ignore the Government crop report as far as prices were concerned and the list showed a slight drop in quoted prices. Southern spinners of carded yarns were quoting prices at least a cent to a cent and a half above those in the market here. Spinners, however, are basing their price ideas on the fact that they are well sold for some weeks and that the actual prices they must pay for spot cotton are at a considerable premium over cotton futures. A few price concessions were reported, but these covered only small lots of yarn, representing a small surplus at some mills.

The inquiry for carded knitting yarns was slightly better toward the end of the week, but no large business resulted. The weaving trades were not active in the market and showed little interest in further yarn supplies. Knitters were interested in February and March deliveries, but their price ideas were too far from those of the mills to result in active trading.

The approaching holidays and inventory period is having a quieting effect on the market and it is not expected that any marked activity will be noted until after the holiday season is over.

Yarn prices in this market were as follows, although spinners prices in most instances were well above the following figures:

Southern Two-Ply Chain Warps.	
8s	35 a
10s	36 a
12s	37 a
14s	37 1/2 a
16s	39 a
20s	42 a
24s	43 1/2 a
26s	45 a
30s	56 a57
40s	66 a67
50s	
Southern Two-Ply Skeins.	
8s	34 a
10s	35 a
12s	36 a
14s	37 a
16s	37 1/2 a
20s	39 a
24s	41 a
26s	43 a
30s	44 a
36s	52 a
40s	54 a55
40s ex.	57 a58
50s	65 a66
60s	72 a
Tinged Carpet	3 and 4-ply 23 a
White Carpet	3 and 4-ply 34 a
Part Insulated Waste Yarns.	
6s, 1-ply	30 a
8s, 2, 3 and 4-ply	31 a
10s, 1-ply and 3-ply	33 a
12s, 2-ply	34 a
16s, 2-ply	36 a
20s, 2-ply	37 a
26s, 2-ply	42 1/2 a
30s, 2-ply	43 a44

Duck Yarns—3, 4 and 5-ply.	
8s	34 a
10s	35 a
12s	36 1/2 a
16s	37 1/2 a
20s	39 a

Southern Single Chain Warps	
10s	35 a
12s	36 a
14s	37 a
16s	38 a
20s	39 a
24s	41 a
26s	42 a
30s	44 a45
40s	55 a

Southern Single Skeins.	
6s	34 a
8s	34 1/2 a
10s	35 a
12s	36 a
14s	36 1/2 a
16s	37 1/2 a
20s	38 a
22s	40 a41
24s	41 a
26s	42 a43
30s	44 a45

Southern Frame Cones	
8s	24 a
10s	24 1/2 a
12s	25 a
14s	25 1/2 a
16s	26 a
18s	27 a
20s	28 a
22s	28 1/2 a
24s	40 a40 1/2
26s	41 a42
28s	42 1/2 a43
30s	41 1/2 a42
30s	45 a46
40s	51 a52

*Tying In.	
Southern Combed Peeler Skeins, Etc.—Two-Ply.	
16s	56 a60
20s	58 a62
30s	65 a67
36s	75 a80
40s	80 a85
50s	87 1/2 a90
60s	90 a95
70s	1 05a1 10
80s	1 18a1 20

Southern Combed Peeler Cones.	
10s	48 a49
12s	49 a50
14s	49 1/2 a50 1/2
16s	52 1/2 a
18s	51 a52
20s	52 a
22s	53 a
24s	56 a
26s	56 1/2 a
28s	57 a
30s	60 a
32s	62 a
34s	65 a
36s	72 a
38s	74 a
40s	75 a
50s	80 a
60s	90 a95
70s	1 05a
80s	1 15a

Eastern Carded Peeler Thread—Twist Skeins—Two-Ply.	
20s	50 a
22s	51 a
24s	56 a
30s	59 a
36s	63 a
40s	65 a
45s	70 a
50s	75 a

Eastern Carded Cones.	
10s	39 a
12s	40 a
14s	41 a
20s	42 a
22s	45 a
26s	49 a
28s	51 a
30s	53 a

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### Wanted

One operator for American Work Drawing Machine. Must be able to do his own repair work. Apply in person or address Santee Mills, Bamberg, S. C.

### Overseer Weaving

With long experience on automobile tire fabrics and other goods, available immediately. Also experienced on twisting. Best of references. Address L. E. D., care Southern Textile Bulletin.

### Wanted

By January first, position as spinner in about 10,000 or 15,000 spindle mill. Married, 35 years old, strictly sober. Can furnish best of references by past and present employers. Address B. W. E., care Southern Textile Bulletin.

### Yarn Mill Superintendent Available

Now employed but desires change to position offering larger opportunity. Many years' experience and best of references from present and past employers. If interested, address H. S. T., care Southern Textile Bulletin.

### Salesmen Wanted

Two salesmen, one to cover North Carolina and the other Georgia, now calling on cotton mills, to handle our Leather Belting, Loop Pickers, Strapping, etc., with their other lines on commission basis. Greenville Belting Co., Greenville, S. C.

### Opening

For Cloth Room Foreman in small mill. Prefer man who has had experience folding and winding bleached cotton flannels. Address X, care Southern Textile Bulletin.

### Good Mechanic and Overseer Spinning

is open for position immediately. Long experience with electric motors. If you need such a combination man, address P. S. J., care Southern Textile Bulletin.

### Wanted

Position as overseer weaving, or designing, or both positions combined. Wide experience. Now employed. Good technical education. References. Address D. N. S., care Southern Textile Bulletin.

### Superintendent Wanted

Want man for superintendent and local manager for small mill on coarse yarns. Expect to install looms. Mill is practically new and is modern and splendidly equipped in every respect. When reorganized will have low capitalization and no indebtedness. Applicant must be in position to take at least \$10,000 stock, the proceeds of which will be used as working capital. Other officers are taking stock for same purpose. It is a splendid opportunity for right man. Address "Yarn Mill," care Southern Textile Bulletin.

## For Sale

A fine southern property for textile development especially but large enough also for other industries, located on two southern trunk lines. A 5800-spindle cotton mill now in operation with 550 to 600 h. p. harnessed but only developed to extent of running present mill.

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The fee for joining our employment bureau for three months is \$2.00, which will also cover the cost of carrying a small advertisement for two weeks.

If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only \$1.00.

During the three months' membership we send the applicant notices of all vacancies in the position which he desires and carry small advertisement for two weeks.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

WANT position in mill office as book keeper, auditor, paymaster or cost accountant. Would take place in superintendent's office. Full graduate from textile school and have considerable mill experience. No. 4734.

WANT position as overseer fancy cloth room or finishing department. Have had 18 years experience in finishing room, including experience on chambrays and gingham. Good references. No. 4735.

WANT position as overseer of carding or spinning. Reliable man of long experience who can furnish satisfactory references. No. 4736.

WANT position as overseer weaving on sheetings, print cloth, drills, duck, or osnaburgs. Eight years as night overseer and second hand in large mill. I. C. S. graduate in warp preparation and plain weaving. Age 39. Married, sober, now employed. Good references. No. 4737.

WANT position as master mechanic. Experienced on both steam and electric drive and am hard worker who can run your job right. References. No. 4738.

WANT position as master mechanic or machinist. Steam or electric drive, can handle turbines, engines, generators and am first class all around man. No. 4739.

WANT position as superintendent of yarn or cord fabric mill. Age 33, married, have been with large mill for past 8 years, 3 years as assistant superintendent. Good reasons for wanting to change and can give good references. No. 4740.

WANT position as superintendent or overseer carding in large mill. Long practical experience and can give first class references. No. 4741.

WANT position as overseer spinning in good mill. Can come on short notice. Experienced, reliable man of good habits and character and can give suitable references. No. 4742.

WANT position as overseer carding or spinning, or assistant superintendent of yarn mill. Long experience and can furnish references to show character and ability. No. 4743.

WANT position as overseer carding and spinning or second hand. Have had several years experience. Am I. C. S. graduate. Age 30, references. No. 4744.

WANT position as overseer of carding spinning with good Southern mill. Experience and training qualify me as first class man in every respect. No. 4745.

WANT position as superintendent, carder or spinner. Prefer North or South Carolina. Now employed. First class references. No. 4746.

WANT position as overseer weaving. Experienced on wide variety of goods and can run the job in thoroughly competent and satisfactory manner. No. 4748.

WANT position as overseer spinning, twisting and winding. Excellent references to show long record of satisfactory service. No. 4749.

WANT position as superintendent of small mill or carder and spinner in larger one. Experienced reliable man who can give first class references to show character and ability. No. 4750.

WANT position in slashing, drawing-in, spooling or warping department. Am young man, I. S. C. graduate and can keep production up and seconds down. Good references. No. 4751.

WANT position as master mechanic; 13 years experience in mill steam plant and machine shops. Can furnish good references from previous employers. No. 4752.

WANT position as superintendent of cloth mill. Long experience on many fabrics and can get results. Fine references. No. 4753.

WANT position by practical weaver of long experience. Have been overseer for past two years, also second hand for four years. Understand plain, dobby and box weaving. Best of references. No. 4754.

WANT position as overseer spinning or would take good second hand's place. Long experience and good references to show character and ability. No. 4755.

WANT position as overseer weaving, 21 years experience in mill, 11 years in weaving. Age 36, married, now employed. Can furnish good references. No. 4756.

WANT position as overseer plain weaving, or would consider place as second hand in large mill. Have had about 20 years' experience, mostly on plain weaving. Good references. No. 4757.

WANT position as carder, spinner or both. Now employed as spinner. Have had 25 years experience in carding and spinning, 10 years as overseer. Good habits and can give good references. No. 4758.

WANT position as carder or spinner in large mill or superintendent of smaller mill. Would like opportunity to submit references showing my record. No. 4759.

WANT position as overseer carding. Can run any card room and run it right. Best of references from past employers. Can come on short notice. No. 4760.

WANT position as carder or spinner or either, pay to be at least \$36 weekly. Can come on short notice and give references to show ability and character. No. 4761.

WANT position as superintendent of yarn mill or mill on plain weaving. Now employed as overseer carding but am capable of running mill. Good references. No. 4762.

WANT position as master mechanic, maintenance engineer, superintendent of power or general mechanical superintendent. Thoroughly qualified by training, experience and ability to take complete charge of your power problems. No. 4763.

WANT position as overseer carding; 25 years experience in some of the best mills in the South. Can give excellent references as to character and ability. No. 4764.

WANT position as master mechanic. Long experience in both steam and electric power work and can handle machine shop in first class manner. Best of references. No. 4765.

WANT position as superintendent of small yarn mill or tire duck plant. Superintendent for past 6 years, 14 years experience on cord and tire duck. My references are unusually good and from well known mill men. No. 4766.

WANT position as superintendent of yarn. Qualified by experience and training to handle either in satisfactory manner. No. 4767.

WANT position as roller coverer. Now employed, but wish to change. Can do first class work in every respect. Good references. No. 4768.



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Southern Artsilk Bleach & Dye Works, Inc.
- Dyeing, Drying, Bleaching and Finishing Machinery—**  
Cocker Machinery & Foundry Co.  
American Laundry Machinery Co.  
H. W. Butterworth & Sons Co.  
Franklin Process Co.  
Klauder-Weldon Dye Machinery Co.  
Perkins, B. F. & Sons, Inc.  
Rodney Hunt Machine Co.  
Textile Finishing Machinery Co.
- Dyestuffs and Chemicals—**  
Borne, Scrymser Co.  
Bosson & Lane.  
E. I. du Pont de Nemours & Co., Inc.
- General Dyestuff Corp.**  
A. Klipstein & Co.  
National Oil Products Co., Inc.  
Newport Chemical Works  
National Aniline & Chemical Co.  
United Chemical Products Co.  
Wolf, Jacques & Co.
- Dye Works—**  
Franklin Process Co.  
Sayles Finishing Plants, Inc.
- Electric Fans—**  
Allis-Chalmers Mfg. Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Electric Hoists—**  
Allis-Chalmers Mfg. Co.  
Link-Belt Co.
- Electric Lighting—**  
Allis-Chalmers Mfg. Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Electric Motors—**  
Allis-Chalmers Mfg. Co.  
Charles Bond Company  
Fairbanks-Morse Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Electric Supplies—**  
Chicago Fuse Mfg. Co.  
Cooper-Hawitt Electric Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Elevators—**  
Link-Belt Co.
- Engineers (Mill)—**  
—See Architects and Mill Engineers.
- Engineers (Ventilating)—**  
Bahnsen Co.  
Parks-Cramer Co.
- Engines (Steam, Oil, Gas, Pumping)—**  
Allis-Chalmers Mfg. Co.  
Fairbanks, Morse & Co.  
Sydnor Pump & Well Co.  
—See also Ventilating Apparatus.
- Expert Textile Mechanic—**  
J. D. Hollingsworth.
- Extractors—**  
American Laundry Machine Co.  
Tolhurst Machine Works.
- Fences (Iron and Wire)—**  
Page Fence and Wire Products Assn.  
Wickwire Spencer Steel Co.
- Fibre Specialties—**  
Rogers Fibre Co.
- Finishers—**  
Sayles Finishing Plants, Inc.
- Finishing Compounds—**  
Arnold, Hoffman & Co., Inc.  
Borne, Scrymser Co.  
Hart Products Corp.  
E. F. Houghton & Co.  
A. Klipstein & Co.  
National Oil Products Co.  
Seydel-Woolley Co.  
L. Sonneborn Sons Co.
- Finishing Machinery—**  
H. W. Butterworth & Sons Co.  
B. F. Perkins & Son, Inc.
- Finishing Machinery—**  
—See Dyeing, Drying, Bleaching and Finishing.
- Flat Wall Paint—**  
E. I. du Pont de Nemours & Co., Inc.  
U. S. Gutta Percha Paint Co.
- Flexible Couplings—**  
T. B. Wood's Sons Co.
- Floor Stands—**  
Wood's T. B. Sons Co.
- Fluted Rolls—**  
Collins Bros. Machine Co.  
Fales & Jenks Machine Co.  
Woonsocket Machine & Press Co., Inc.  
Whitin Machine Works.
- Flyer Pressers and Overhaulers—**  
Southern Spindle & Flyer Co.  
Whitin Machine Works.  
Woonsocket Machine & Press Co., Inc.
- Flyers—**  
Saco-Lowell Shops.  
Southern Spindle & Flyer Co.  
Whitin Machine Works.
- Frames—**  
Steel Heddle Mfg. Co.  
Friction Clutches—  
Wood's T. B. Sons Co.  
See Clutches.
- Fuses—**  
Chicago Fuse Mfg. Co.  
Gearing (Silent Flexible)—  
Link-Belt Co.
- Gears—**  
Charles Bond Company  
Dan Gear Co.  
Ferguson Gear Co.
- Gears-Silent—**  
Charles Bond Company  
Ferguson Gear Co.
- Gear Makers—**  
Charles Bond Company  
Ferguson Gear Co.
- Generating Sets—**  
Fairbanks, Morse & Co.
- Grate Bars—**  
Thomas Grate Bar Co.



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- Grab Buckets—  
Link-Belt Co.
- Greases—  
N. Y. & N. J. Lubricant Co.  
L. Sonneborn Sons, Inc.  
Grinding and Polishina Machines—  
Gudgeon Rolls—  
Washburn.  
Easton & Burnham Machine Co.  
Roy, B. S. & Son Co.
- Hangers (Ball and Socket)—  
Charles Bond Company  
William Sellers & Co., Inc.  
T. B. Wood's Sons Co.
- Hangers (Shaft)—  
Charles Bond Company  
Fafnir Bearing Co.  
Hyatt Roller Bearing Co.  
William Sellers & Co., Inc.  
Wood's T. B. & Sons Co.
- Hardware Supplies—  
Textile Mill Supply Co.
- Harness Twine—  
Garland Mfg. Co.
- Harness and Frames—  
—See Heddles and Frames.
- Heddles and Frames—  
Garland Mfg. Co.  
Steel Heddle Mfg. Co.  
L. S. Watson Mfg. Co.
- Hoists—  
Fairbanks, Morse & Co.
- Hopper-Feed Hand Stokers—  
The J. H. Williams Co.
- Hosiery Dyeing Machinery—  
Cocker Machinery & Foundry Co.
- Humidity and Air Conditioning Apparatus—  
American Moistening Co.  
The Bahnsen Co.  
Carrier Engineering Co.  
Parks-Cramer Co.
- Humidity Controller—  
American Moistening Co.  
The Bahnsen Co.  
Carrier Engineering Corp.  
Parks-Cramer Co.
- Hydro-Extractors—  
American Laundry Machinery Co.  
Tolhurst Machine Co.
- Indigo Dyeing Machinery—  
H. W. Butterworth & Sons Co.  
Cocker Machinery & Foundry Co.  
Textile Finishing Machinery Co.
- Insurance—  
Liberty Mutual Insurance Co.
- Knit Goods Finishing Machines—  
Kaumagraph Co.  
Morrow Machine Co., The.
- Knotters—  
Barber-Colman Co.  
Morrow Machine Co.
- Knitting Lubricants—  
National Oil Products Co.
- Laundry Machinery—  
Tolhurst Machine Works.
- Landscape Architect—  
E. S. Draper.
- Leather Packings—  
Charles Bond Company  
Chicago Belting Co.  
Edward R. Ladew Co.  
E. F. Houghton & Co.  
Graton & Knight Mfg. Co.
- Leather Loom Pickers—  
Charles Bond Company  
E. H. Jacobs Mfg. Co.
- Leather Strapping—  
Charles Bond Company  
Edward R. Ladew Co.  
Graton & Knight Mfg. Co.  
E. F. Houghton & Co.
- Leather Straps—  
E. H. Jacobs Mfg. Co.
- Liquid Chlorine—  
Arnold, Hoffman & Co., Inc.  
Mathieson Alkali Works, Inc.
- Looms—  
Crompton & Knowles Loom Works.  
Draper Corporation.  
Hopdale Mfg. Co.  
Stafford Co., The.
- Loom Beams and Heads—  
Mossberg Pressed Steel Corp.
- Loom Drop Wires—  
Crompton & Knowles Loom Works.  
Hopdale Mfg. Co.  
Mossberg Pressed Steel Corp.  
Steel Heddle Mfg. Co.  
R. I. Warp Stop Equipment Co.
- Loom Harness—  
Atlanta Harness & Reed Mfg. Co.  
Garland Mfg. Co.  
Steel Heddle Mfg. Co.
- Loom Pickers—  
Jas. H. Billington Co.  
Charles Bond Company  
Edward R. Ladew Co.  
E. H. Jacobs Mfg. Co.  
Garland Mfg. Co.  
Graton & Knight Mfg. Co.
- Loom Reeds—  
Atlanta Harness & Reed Mfg. Co.  
Greensboro Loom Reed Co.  
High Point Loom Reed & Harness Co.  
Steel Heddle Mfg. Co.
- Loom Supplies—  
Charles Bond Company  
E. H. Jacobs Mfg. Co.
- Lubricants—  
Borne, Scrymser & Co.  
E. F. Houghton & Co.  
N. Y. & N. J. Lubricant Co.  
L. Sonneborn Sons, Inc.
- Lubricators—  
Malcolm H. Smith Co., Inc.
- Lug Straps—  
Charles Bond Company  
E. H. Jacobs Mfg. Co.
- Machinery Enamel—  
E. I. du Pont de Nemours & Co., Inc.
- Mangles—  
H. W. Butterworth & Sons Co.  
Textile Finishing Machinery Co.
- Markers—  
Kaumagraph Co.  
Morrow Machine Co.
- Measuring and Folding Machines—  
Cocker Machinery & Foundry Co.  
Curtis & Marble Machine Co.  
Textile Finishing Machinery Co.
- Mercerizing Machinery—  
Cocker Machinery & Foundry Co.  
H. W. Butterworth & Sons Co.  
Textile Finishing Machinery Co.
- Metal Paint—  
E. I. du Pont de Nemours & Co., Inc.
- Meters—  
Allis-Chalmers Mfg. Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Mill Architects—  
—See Architects.
- Mill Lighting—  
—See Electric Lighting.
- Mill Starches—  
Arnold, Hoffman & Co., Inc.  
Jas. H. Billington Co.  
Corn Products Refining Co.  
Penick & Ford, Ltd.  
Keefer Starch Co.  
Stein, Hall & Co.
- Mill Supplies—  
Charles Bond Company  
Dixon Lubricating Saddle Co.  
E. H. Jacobs Mfg. Co.  
Garland Mfg. Co.  
Textile Mill Supply Co.  
Thomas Grate Bar Co.
- Mill White—  
E. I. du Pont de Nemours & Co., Inc.  
Oliver Johnson & Co.
- Napper Clothing—  
Wickwire Spencer Steel Co.
- Napper Roll Grinders—  
B. S. Roy & Son Co.  
Allis-Chalmers Mfg. Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Oils—  
Arnold, Hoffman & Co., Inc.  
E. F. Houghton & Co.  
A. Klipstein & Co.  
National Oil Products Co.  
N. Y. & N. J. Lubricant Co.  
L. Sonneborn Sons, Inc.  
Wolf, Jacques & Co.
- Oil Burners—  
Scott-Newman Oil Burner Co.
- One-Piece Furnace Linings—  
Carolina Refractories Co.
- Opening Machinery—  
H. & B. American Machine Co.  
Saco-Lowell Shops.  
Whitin Machine Works.
- Overhaulers—  
Saco-Lowell Shops.
- Overseaming and Overedging Machines—  
Southern Spindle & Flyer Co.
- Paints—  
E. I. du Pont de Nemours & Co., Inc.  
Aluminum Co. of America.  
Oliver Johnson & Co.  
Tripod Paint Co.  
U. S. Gutta Percha Paint Co.
- Patents—  
Siggers & Siggers.
- Picker Gears—  
Cocker Machinery & Foundry Co.
- Pickers (Leather)—  
Charles Bond Company  
Edward R. Ladew Co.  
E. F. Houghton & Co.  
E. H. Jacobs Mfg. Co.  
Garland Mfg. Co.  
Graton & Knight Mfg. Co.
- Picker Sticks—  
Charles Bond Company  
Garland Mfg. Co.
- Piece Dyeing Machinery—  
H. W. Butterworth & Sons Co.  
Cocker Machinery & Foundry Co.  
Textile Finishing Machinery Co.
- Pipe and Fittings—  
Parks-Cramer Co.
- Portable Elevators—  
Link-Belt Co.
- Power Transmission Machinery—  
Allis-Chalmers Mfg. Co.  
Charles Bond Company  
Hyatt Roller Bearing Co.  
Fafnir Bearing Co.  
Link-Belt Co.
- Morse Chain Co.  
William Sellers & Co., Inc.  
Wood's, T. B. Sons Co.
- Preparatory Machinery (Cotton)—  
H. & B. American Machine Co.  
Saco-Lowell Shops.  
Whitin Machine Works.  
Woonsocket Machine & Press Co., Inc.
- Pickers and Lappers—  
Whitin Machine Works.  
Woonsocket Machine & Press Co., Inc.
- Pinboards—  
Washburn.
- Porcelain Guides and Parts—  
Page-Madden Co., Inc.
- Presses—  
Economy Baler Co.  
Saco-Lowell Shops.
- Pulleys (Cast Iron)—  
Charles Bond Company  
William Sellers & Co., Inc.  
Wood's, T. B. Sons Co.
- Pumps—  
Blackmer Rotary Pump Co.  
Pumps (Boiler Feed; also Centrifugal)—  
Allis-Chalmers Mfg. Co.  
Fairbanks, Morse & Co.  
Sydnor Pump & Well Co.
- Presses—  
Collins Bros.
- Quill Boards—  
Washburn.
- Quillers—  
Crompton & Knowles Loom Works.  
Universal Winding Co.  
Whitin Machine Works.
- Quill Cleaners—  
Terrell Machine Co.
- Receptacles—  
Economy Baler Co.  
Rogers Fibre Co.
- Reels—  
Cocker Machinery & Foundry Co.  
H. W. Butterworth & Sons Co.
- Rings—  
Whitinsville Spinning Ring Co.
- Ring Spinning Frames—  
Fales & Jenks Machine Co.  
H. & B. American Machine Co.  
Textile Finishing Machinery Co.  
Whitin Machine Works.  
Saco-Lowell Shops.
- Ring Travelers—  
Dary Ring Traveler Co.  
National Ring Traveler Co.  
Victor Ring Traveler Co.  
U. S. Ring Traveler Co.
- Rolls—  
H. W. Butterworth & Sons Co.  
Collins Bros. Machine Co.  
Fales & Jenks Machine Co.  
Rodney Hunt Machine Co.  
The Whittin Machine Works.  
Woonsocket Machine & Press Co., Inc.  
Saco-Lowell Shops.  
Southern Spindle & Flyer Co.  
Textile Finishing Machinery Co.
- Rolls (Metal)—  
Rodney Hunt Machine Co.
- Rolls (Rubber)—  
Rodney Hunt Machine Co.
- Rolls (Wood)—  
Rodney Hunt Machine Co.  
Washburn.
- Roller Bearings—  
Charles Bond Company  
Fafnir Bearing Co.  
Hyatt Roller Bearing Co.
- Roving Cans and Boxes—  
Denison Mfg. Co.  
Rogers Fibre Co.
- Roving Machinery—  
Whitin Machine Works.  
Woonsocket Machine & Press Co., Inc.  
Saco-Lowell Shops.
- Saddles—  
Dixon Lubricating Saddle Co.
- Sanitary Equipment—  
Vogel Co., Joseph A.
- Sanitary Fountains—  
—See Drinking Fountains.
- Scales—  
Fairbanks, Morse & Co.
- Scallop Machines—  
Morrow Machine Co.
- Scouring Powders—  
Bosson & Lane.  
Ford, J. B. Co.  
National Oil Products Co.
- Scrubbing and Cleaning Powders—  
The Denison Mfg. Co.
- Sesquicarbonate of Soda—  
Mathieson Alkali Works, Inc.
- Section Beam Heads—  
Mossberg Pressed Steel Corp.
- Selling Agents—  
Woodward, Baldwin & Co.  
Deering, Milliken & Co.
- Selling Agents (Cotton Goods)—  
Amory, Browne & Co.  
Curran & Barry.  
Deering, Milliken & Co.  
W. H. Langley & Co.  
Leslie, Evans & Co.  
Reeves Bros.  
Wellington, Sears & Co.
- Sewing Machines—  
Morrow Machine Co.
- Sewing Machines and Supplies—  
Curtis & Marble Machine Co.  
Shafting, Hangers, Etc.  
—See Power Transmission Machinery.
- Shafting—  
Fafnir Bearing Co.  
William Sellers & Co., Inc.  
Wood's T. B. Sons Co.
- Shell Rolls—  
Washburn.
- Shell Stitch Machines—  
Morrow Machine Co.
- Short Center Drives—  
T. B. Wood's Sons Co.
- Shuttles—  
Jas. H. Billington Co.  
David Brown Co.  
Lowell Shuttle Co.  
Draper Corporation.  
Hopdale Mfg. Co.  
Shambow Shuttle Co.  
L. S. Watson Mfg. Co.  
The J. H. Williams Co.  
U. S. Bobbin & Shuttle Co.
- Silk Yarns (Artificial)—  
American Cellulose & Chemical Mfg. Co.  
Duplan Silk Corp.  
Imperial Rayon Co.  
Industrial Fibre Co.
- Silent Chain Drive—  
Link-Belt Co.  
Morse Chain Co.
- Singeing Machinery—  
H. W. Butterworth & Sons Co.  
Textile Finishing Machinery Co.
- Sizing Starches, Gums—  
Arnold, Hoffman & Co., Inc.  
Arabel Mfg. Co.  
Hart Products Corp.  
L. Sonneborn Sons, Inc.  
Stein, Hall & Co.
- Sizing Compounds—  
Arnold, Hoffman & Co., Inc.  
Bosson & Lane.  
Corn Products Refining Co.  
Drake Corp.  
General Dyestuff Corp.  
Hart Products Corp.  
A. Klipstein & Co.  
National Oil Products Co.  
United Chemical Products Co.  
John P. Marston & Co.  
Seydel Chemical Co.  
Seydel-Woolley Co.  
L. Sonneborn Sons, Inc.  
Wolf, Jacques & Co.
- Slashers Combs—  
Easton & Burnham Machine Co.  
T. C. Entwistle Co.  
High Point Loom Reed & Harness Co.  
Steel Heddle Mfg. Co.  
Textile Finishing Machinery Co.
- Softeners (Cotton)—  
Arabel Mfg. Co.  
Arnold, Hoffman & Co., Inc.  
Bosson & Lane.  
General Dyestuff Corp.  
E. F. Houghton & Co.  
National Oil Products Co., Inc.  
Seydel Chemical Co., The.  
L. Sonneborn Sons, Inc.  
United Chemical Products Corp.  
U. S. Bobbin & Shuttle Co.  
Wolf, Jacques & Co.
- Softeners—  
Arnold, Hoffman & Co., Inc.  
E. F. Houghton & Co.  
National Oil Products Co., Inc.  
Seydel-Woolley Co.  
L. Sonneborn Sons Co.
- Skewers—  
David Brown Co.  
Courtney, The Dana S. Co.  
T. C. Entwistle Co.  
Jordan Mfg. Co.  
Walter L. Parker Co.  
U. S. Bobbin & Shuttle Co.
- Slashers and Equipment—  
Saco-Lowell Shops.
- Soaps—  
Arabel Mfg. Co.  
Arnold, Hoffman & Co., Inc.  
A. Klipstein & Co.  
National Oil Products Co.  
L. Sonneborn Sons, Inc.  
United Chemical Products Co.
- Soda Ash—  
J. B. Ford Co.  
Mathieson Alkali Works, Inc.
- Softeners (Oil)—  
Bosson & Lane.  
E. F. Houghton & Co.  
Hart Products Corp.  
National Oil Products Co.  
L. Sonneborn Sons, Inc.
- Spindles—  
Collins Bros. Machine Co.  
Draper Corporation.  
Easton & Burnham Machine Co.  
Fales & Jenks Machine Co.  
Saco-Lowell Shops.  
Whitin Machine Works.  
Southern Spindle & Flyer Co.  
Woonsocket Machine & Press Co., Inc.



## CLASSIFIED LIST OF ADVERTISERS

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Collins Bros. Co.  
Fournier & Lemoine.  
Fales & Jenks Machine Co.  
Southern Spindle & Flyer Co.

**Spinning Frame Saddles—**  
Dixon Lubricating Saddle Co.  
**Spinning Frame Top Rolls (Wood)—**  
Washburn.

**Spinning Rings—**  
Collins Bros. Machine Co.  
Draper Corporation.  
Fales & Jenks Machine Co.  
Pawtucket Spinning Ring Co.  
Saco-Lowell Shops.  
Whitin Machine Works.  
Whitinsville Spinning Ring Co.

**Spools—**  
David Brown Co.  
Courtney, The Dana S. Co.  
Jordan Mfg. Co.  
Lestershire Spool & Mfg. Co.  
Steel Heddle Mfg. Co.  
U. S. Bobbin & Shuttle Co.  
Walter L. Parker Co.

**Sprockets—**  
Cocker Machinery & Foundry Co.  
**Sprockets, Silent Chain—**  
Link-Belt Co.

**Spoolers—**  
Draper Corporation.  
Easton & Burnham Machine Co.  
Saco-Lowell Shops.  
Whitin Machine Works.

**Spinning Tapes—**  
American Textile Banding Co.  
Barber Mfg. Co.  
Georgia Webbing & Tape Co.

**Squeeze Rolls—**  
H. W. Butterworth & Sons Co.  
Cocker Machine & Foundry Co.  
**Textile Finishing Machinery Co.**

**Starch—**  
Arnold, Hoffman & Co., Inc.  
Corn Products Refining Co.  
Keefer Starch Co.  
Penick & Ford, Ltd.  
Stein, Hall & Co.

**Stencil Machines—**  
A. J. Bradley Mfg. Co.  
**Stencil Papers—**  
A. J. Bradley Mfg. Co.

**Stripper Cards—**  
L. S. Watson Mfg. Co.  
Wickwire Spencer Steel Co.

**Switch Boxes—**  
Chicago Fuse Mfg. Co.

**Tanks—**  
H. W. Butterworth & Sons Co.  
**Textile Finishing Machinery Co.**

**Tape—**  
Georgia Webbing & Tape Co.

**Temperature Regulators—**  
American Schaeffer & Budenberg Corp.

**Textile Castings—**  
H. W. Butterworth & Sons Co.  
Cocker Machinery & Foundry Co.  
**Textile Finishing Machinery Co.**

**Textile Machinery Specialties—**  
H. W. Butterworth & Sons Co.  
Cocker Machine & Foundry Co.  
Hyatt Roller Bearing Co.  
**Textile Finishing Machinery Co.**

**Textile Soda—**  
J. B. Ford Co.  
Mathieson Alkali Co.

**Temples—**  
Draper Corporation.  
Hopdale Mfg. Co.  
**Textile Apparatus (Fabrics)—**  
B. F. Perkins & Son, Inc.  
Henry L. Scott & Co.

**Textile Dryers—**  
American Moistening Co.

**Top Rolls For Spinning Frames—**  
Washburn.

**Trademarking Machines—**  
Curtis & Marble Machine Co.

**Transfer Stamps—**  
Kaumagraph Co.

**Transmission Belts—**  
Jas. H. Billington Co.  
Charles Bond Company  
Chicago Belting Co.  
Slip-Not Belting Corp.  
Edward R. Ladew Co.  
E. F. Houghton & Co.  
Graton & Knight Mfg. Co.

**Transmission Machinery—**  
Allis-Chalmers Mfg. Co.  
Hyatt Roller Bearing Co.  
William Sellers & Co., Inc.  
Wood's T. B. & Sons Co.

**Toilets—**  
Vogel, Jos. A. Co.

**Transmission Silent Chain—**  
Link-Belt Co.  
Morse Chain Co.

**Trucks (Mill)—**  
Rogers Fibre Co.  
W. T. Lane & Bros.  
**Trucks For Pin Boards—**  
Washburn.

**Tubes (Paper)—**  
Sonoco Products Co.

**Turbines (Steam)—**  
Allis-Chalmers Mfg. Co.

**Twisting Machinery—**  
Collins Bros. Machine Co.  
Draper Corporation.  
Fales & Jenks Machine Co.  
Saco-Lowell Shops.  
Whitin Machine Works.

**Twisting Tapes—**  
Barber Mfg. Co.

**Underwear Machines—**  
Merrow Machine Co.

**Ventilating Apparatus—**  
American Moistening Co.  
Parks-Cramer Co.

**Ventilating Fans—**  
B. F. Perkins & Son, Inc.

**Warpers—**  
Barber-Colman Co.  
Cocker Machinery & Foundry Co.  
Crompton & Knowles Loom Works.  
Draper Corporation.  
Easton & Burnham Machine Co.  
Saco-Lowell Shops.  
T. C. Entwistle Co.

**Warp Dressing—**  
Arnold, Hoffman & Co., Inc.  
Boson & Lane.  
Draper Corporation.

**Hart Products Corp.**  
E. F. Houghton & Co.  
National Oil Products Co.  
Seydel-Woolley Co.  
L. Sonneborn Sons Co.

**Warp Stop Motion—**  
Draper Corp.  
Hopdale Mfg. Co.  
R. L. Warp Stop Equipment Co.

**Warp Tying Machinery—**  
Barber-Colman Co.

**Warper Shell—**  
Cocker Machinery & Foundry Co.  
**Washers (Fibre)—**  
Rogers Fibre Co.

**Waste Reclaiming Machinery—**  
Saco-Lowell Shops  
Whitin Machine Works  
Woonsocket Machine & Press Co., Inc.

**Waste Presses—**  
Economy Baler Co.

**Water Controlling Apparatus—**  
Rodney Hunt Machine Co.

**Water Wheels—**  
Allis-Chalmers Mfg. Co.

**Weighting Compounds—**  
Arabol Mfg. Co.  
Boson & Lane.  
General Dyestuff Corp.  
Hart Products Corp.  
Marston, Jno. P.  
National Oil Products Co.  
Jacques Wolf & Co.  
Seydel-Woolley Co.  
L. Sonneborn Sons, Inc.

**Well Drillers—**  
Sydnor Pump and Well Co.

**Whizzers—**  
Tolhurst Machine Works.

**Winders—**  
Easton & Burnham Machine Co.

**Saco-Lowell Shops.**  
Universal Winding Co.

**Windows—**  
Carrier Engineering Corp.  
Parks-Cramer Co.

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Wickwire Spencer Steel Co.

**Wire Partitions—**  
Wickwire Spencer Steel Co.

**Yardage Clocks—**  
T. C. Entwistle Co.

**Yarns—**  
Paulson, Linkroum & Co.  
Mauney-Steel Co.

**Yarn Tension Device—**  
Eclipse Textile Devices, Inc.

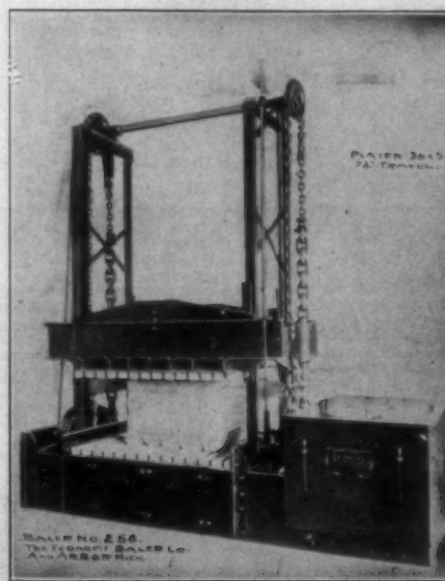
**Yarn Presses—**  
Economy Baler Co.

**Yarn Testing Machines—**  
H. L. Scott & Co.

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HEAVY DUTY NO. 258. PLATEN 50 x 36



This Economy Heavy Duty Cloth Press No. 258, has a platen 50 x 36 inches. Platen travel of 72 inches. Equipped complete with Direct Connected Electric Motor.

Press will develop tremendous pressure, ample for the baling for Export and Domestic shipment of Duck, Khaki, Osnaburghs, Sheetting, Print Cloths, Ticking, Twills, Denims, Drills, Lawns and Shirtings or for compressing ginghams. Requires only about one minute of actual motor operation to make a Bale of Cloth.

Press maintains its maximum pressure indefinitely, until released. Unlimited compressing platen stroke. In other words, platen will travel as low as is necessary to completely compress the bale, regardless of the third dimension, as the platen can go down to within four inches of compressing platform. Entirely self contained, requiring no cement foundation, pit,

over head counter-shafting, chain connections, etc.

Chains are hand forged Swedish steel. Will stand over 50 per cent over load, a greater load than can be exerted by the motor pulling up to 40 H. P. torque.

Write for any special information.

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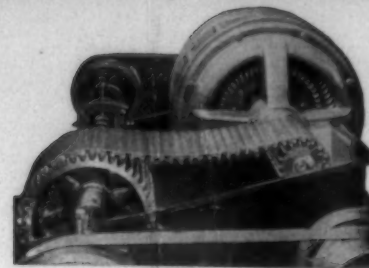
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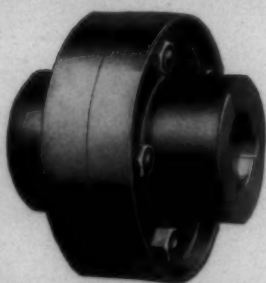


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